

**GALVESTON COUNTY COMMISSIONERS COURT
GALVESTON COUNTY COURTHOUSE
722 MOODY (FIRST FLOOR) - GALVESTON
FEBRUARY 9, 2011 – 9:30 A.M.**

CONSENT AGENDA: ALL ITEMS MARKED WITH A SINGLE ASTERISK (*) ARE PART OF THE CONSENT AGENDA AND REQUIRE NO DELIBERATION BY THE COMMISSIONERS COURT. ANY COMMISSIONERS' COURT MEMBER MAY REMOVE AN ITEM FROM THIS AGENDA TO BE CONSIDERED SEPARATELY. **APPEARANCES:** SHOULD ANYONE WISH TO ADDRESS THE COMMISSIONERS COURT ON A SPECIFIC ITEM, PLEASE ARRIVE PRIOR TO THE MEETING AND SIGN IN WITH THE COUNTY CLERK.

REGULARLY SCHEDULED MEETING – AGENDA – 9:30 A.M.

Pledge of Allegiance and Invocation

- *1. Submitted by County Auditor's Office:
 - a. Approval of Accounts Payable checks dated 2/9/11
 - b. Order for payroll period ending 2/2/11 Bi-Weekly #3
 - c. Cash count report for Constable, Precinct 4 dated 9/8/2010 as submitted by Ron Chapa, First Asst. County Auditor – Internal Audit
- *2. Receive and file *Notice of Meeting, Agenda and Minutes* from the Gulf Coast Center.
- *3. Receive and file District Clerk's bank reconciliation records dated 12/10/2011 submitted by the District Clerk's Office.
- *4. Receive and file revised grant awards for the following Justice Assistance Grants submitted by the Grants Manager:
 - a. 2009-DJ-BX-1445
 - b. 2009-SB-B9-3131
 - c. 2010-DJ-BX-1310
- *5. Consideration and Consent of Tax Refunds in excess of \$2,500 as submitted by Assessor and Collector of Taxes:

1386-0002-0035-000	\$	2,962.84	Duplicate	1395-0008-0080-000	\$	2,851.93	Duplicate
1395-0008-0080-000	\$	2,851.93	Duplicate	2390-0002-0001-002	\$	5,615.49	Duplicate
2650-0000-0007-000	\$	27,100.09	Duplicate	3866-0000-0001-005	\$	7,800.00	Overpayment
4505-0000-0020-000	\$	4,957.00	Overpayment	4850-0000-0016-000	\$	2,622.51	Duplicate
5050-0000-0006-010	\$	2,843.33	Duplicate	5293-0000-1004-000	\$	3,513.16	Duplicate

5515-0010-0001-000	\$	4,714.54	Duplicate	6041-0002-0010-000	\$	3,056.73	Duplicate
5602-0001-0072-000	\$	2,785.92	Duplicate	6384-0000-1923-001	\$	9,068.05	Duplicate
7170-0000-0032-000	\$	2,835.36	Duplicate	1381-0003-0022-000	\$	3,053.88	Duplicate
1600-0000-0019-100	\$	14,442.44	Duplicate	2098-0001-0011-000	\$	2,983.47	Duplicate
2862-0003-0003-000	\$	3,196.62	Overpayment	2960-0001-0053-000	\$	6,082.95	Duplicate
2996-0000-0175-000	\$	2,751.10	Overpayment	3505-0017-0001-000	\$	7,442.60	Duplicate
3510-0042-2000-008	\$	7,331.13	Duplicate	3510-0113-1004-001	\$	2,875.14	Duplicate
3510-0113-2011-001	\$	3,143.58	Overpayment	3535-0003-0007-000	\$	2,642.95	Duplicate
3688-0001-0009-000	\$	2,525.01	Duplicate	3755-0003-0011-000	\$	9,665.94	Overpayment
3821-0002-0034-000	\$	2,550.89	Overpayment	3956-0000-0046-000	\$	3,796.69	Duplicate
4959-0003-0010-000	\$	2,701.29	Duplicate	5049-0000-0002-000	\$	4,780.04	Duplicate
5970-0000-0006-000	\$	2,717.17	Duplicate	6390-0000-1804-000	\$	6,407.00	Duplicate
6392-0000-0036-000	\$	4,061.59	Duplicate	6396-0001-0015-000	\$	4,917.64	Duplicate
7205-0000-0520-001	\$	3,049.82	Overpayment	7549-0001-0016-000	\$	3,793.78	Duplicate
8700-0501-7746-035	\$	4,951.23	Duplicate				

6. Consideration of *“Amendment No. 1 to the Agreement Under Transportation Code Chapters 502 and 520 for Services to Third Parties Related to Licensing of Vehicles and Sublease of Remote Sticker and Printing System”* submitted by Assessor and Collector of Taxes.
7. Consider recommending awarding a contract on the following bid submitted by the Purchasing Agent:

Bid #B111026 Reconstruction of Sunnyview & Skyview Streets

8. Consideration of execution of *Sign Rental Agreement between Galveston County and Don Suderman, Owner* for the public’s awareness of the Bolivar Beach Sticker Program submitted by Parks & Senior Services Director.
9. Consideration of authorizing Interlocal Agreement for sanding roads between the County of Galveston and the Village of Tiki Island submitted by Road and Bridge Department.
10. Consideration of an *Agreement To Terminate Participating Provider Services Agreement*; a contract between Galveston County Indigent Health Care Program and Texas Pain and Medical Management Group/Karl K. Covington, M.D. submitted by Community Services Director.
11. Request to ratify the hiring of a Human Resources Director to become effective February 10, 2011, as submitted by the Director of Finance and Administration.
12. Consideration of Budget Amendments As Submitted by the Budget Officer:

Fiscal Year Amendment # Description

- | | | |
|------|---------------|---|
| 2011 | 11-036-0209-A | Road and Bridge – Budget request for additional funds to cover various expenditures with internal transfers. |
| 2011 | 11-037-0209-B | District Clerk – Budget request for two projects in District Clerk’s Office- Back Scanning and Odyssey Project-Family Section. |
| 2011 | 11-038-0209-C | Various Departments – Request to reorganize and reclassify various positions in Galveston County departments. |
13. Consideration of *An Order Designating the Third Tuesday of Each Month as the regular Term of the Galveston County Commissioner’s Court Commencing February 15, 2011* submitted by legal.
 14. Consideration of Hurricane Ike issues submitted by the Emergency Management Coordinator:
 - a. Consideration of execution of Contracts for Sale under the Hazard Mitigation Grant Program.
 - b. Consideration of authorizing execution of Revised Contracts for Sale under the Hazard Mitigation Grant Program.

WORKSHOP MEETING – AGENDA

WORKSHOP WILL BEGIN IMMEDIATELY AFTER COMMISSIONERS COURT ADJOURNS. WORKSHOP WILL BREAK FOR LUNCH AT NOON AND RESUME AT 1:30 P.M.

Workshop Items

1. Discuss Mandatory Vacancy Period for Employees of the Road and Bridge
2. Discuss and Understand County Clerk's plan for conducting elections its staff, budget, and updates.
3. Discuss the following as submitted by Parks and Senior Services
 - Jane Long Monument project
 - Update on 2011 Bolivar Beach Sticker Program
 - Update on Gregory Park Baseball Field

AGENDA

ITEM

#1a

Galveston County, Texas

List of County Auditor's Approved Claims For Voucher Warrants Dated 02/09/2011

Invoice Number	Account Info	Amount
FUND: 1101 General Fund		
Warrant #: VW 00000118	Payee Name: BAKER, STEPHEN W	
1/24-30/11 SRVC	1101121000 - 5431301 Justice Administration - Relief Associate Judge	978 50
ARI1100038	1101121000 - 5431301 Justice Administration - Relief Associate Judge	6,417 50
	Warrant Total:	7,396.00
Warrant #: VW 00000119	Payee Name: BOB PAGAN FORD INC	
222175	1101172111 - 5423110 Fleet Mgmt-Galveston - Auto Maintenance	238 40
222639	1101211101 - 5423110 Administration Sheriff Dept - Auto Maintenance	145 25
222686	1101211101 - 5423110 Administration Sheriff Dept - Auto Maintenance	1,027 70
222712	1101211101 - 5423110 Administration Sheriff Dept - Auto Maintenance	62 80
222722	1101211101 - 5423110 Administration Sheriff Dept - Auto Maintenance	25 49
	Warrant Total:	1,499.64
Warrant #: VW 00000120	Payee Name: GALVESTON NEWSPAPERS INC	
0018351 011211	1101190100 - 5311000 County Engineer - Housing Assist Prog Office Sup	156 00
00260036	1101151800 - 5493101 Purchasing Agent - Legal Advertising	330 44
00260039	1101151800 - 5493101 Purchasing Agent - Legal Advertising	325 44
00260914	1101151800 - 5493101 Purchasing Agent - Legal Advertising	325 32
00260916	1101151800 - 5493101 Purchasing Agent - Legal Advertising	320.32
00260925	1101151300 - 5493101 County Auditor - Legal Advertising	826 75
00261012	1101151800 - 5493101 Purchasing Agent - Legal Advertising	322 76
00261013	1101151800 - 5493101 Purchasing Agent - Legal Advertising	317 76
00261206	1101151800 - 5493101 Purchasing Agent - Legal Advertising	343 24
00261207	1101151800 - 5493101 Purchasing Agent - Legal Advertising	338 24
13105364 013111	1101110000 - 5493102 General Government - Advertising Costs-Sheriff Sale	21,648 64
	Warrant Total:	25,254.91
Warrant #: VW 00000121	Payee Name: LONE STAR UNIFORMS INC	
195709	1101223400 - 5312101 Constable Pct #4 - Fullen - Uniform Expense	135 00
	Warrant Total:	135.00
Warrant #: VW 00000122	Payee Name: SCHWAB-RADCLIFFE, SUZANNE	
ARI1100037	1101121000 - 5431301 Justice Administration - Relief Associate Judge	3,198 17
	Warrant Total:	3,198.17
Warrant #: VW 00339417	Payee Name: ADAMS & REESE LLP	
789542	1101000010 - 4414012 General Government - County Clerk Refund of Fees	46 00
	Warrant Total:	46.00
Warrant #: VW 00339418	Payee Name: ALBRITTON, AMANDA PARRISH	
20105954CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	15 00
	Warrant Total:	15.00
Warrant #: VW 00339420	Payee Name: AMBIUS	
004846HR306601	1101170100 - 5412094 Facilities Svcs & Maintenance - CareHere Clinic Expenditu	23 29
	Warrant Total:	23.29
Warrant #: VW 00339425	Payee Name: ARLAN'S MARKETS	
113805	1101443100 - 5447102 Indigent Care & Medication - Meals	29 71
	Warrant Total:	29.71

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<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
Warrant #: VW 00339426	Payee Name: ATTMORE, WILLIAM	
20106302CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	5.00
	Warrant Total:	5.00
Warrant #: VW 00339428	Payee Name: BACLIFF MUNICIPAL UTILITY DISTRICT	
10104330 012611	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	31.41
	Warrant Total:	31.41
Warrant #: VW 00339429	Payee Name: BARRETT DAFFIN FRAPPIER TURNER & ENGEL	
20105140CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	5.00
	Warrant Total:	5.00
Warrant #: VW 00339439	Payee Name: BENNETT, JAMES M	
09CR2002 110510	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	390.00
10CR1515 012811	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	487.50
	Warrant Total:	877.50
Warrant #: VW 00339440	Payee Name: BFI WASTE SERVICES OF TEXAS LP	
0855000397373	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	78.00
0855000397399	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	62.01
0855000397640	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	218.01
	Warrant Total:	358.02
Warrant #: VW 00339443	Payee Name: BISTOI, TIFFANY	
766276	1101000010 - 4414012 General Government - County Clerk Refund of Fees	8.00
	Warrant Total:	8.00
Warrant #: VW 00339446	Payee Name: BOLIVAR PENINSULA SPECIAL UTILITY	
02205 012511	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	293.21
02222 013111	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	46.23
02875 013111	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	69.35
03863 011911	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	101.51
04583 013111	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	69.35
05389 012111	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	138.69
06108 012111	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	1,389.00
	Warrant Total:	2,107.34
Warrant #: VW 00339447	Payee Name: BRET GRIFFIN P.C.	
309770 012811	1101122200 - 5431222 County Court #2 - Roberts - Defense Atty Co Ct #2	796.25
	Warrant Total:	796.25
Warrant #: VW 00339448	Payee Name: BRIGGS, LYNETTE	
07CP0073 010611	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	104.00
	Warrant Total:	104.00
Warrant #: VW 00339450	Payee Name: BROWN & ASSOCIATES	
785399	1101000010 - 4414012 General Government - County Clerk Refund of Fees	6.00
	Warrant Total:	6.00
Warrant #: VW 00339452	Payee Name: BROWN, ADAM BANKS	
10CR1693 012811	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	201.50

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<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
Warrant Total:		201.50
Warrant #: VW 00339454	Payee Name: BUZBEE PROPERTIES INC	
ARI1100032	1101123800 - 5426250 Justice Court Pct #8-2 - Rental Office Space	2,611.33
Warrant Total:		2,611.33
Warrant #: VW 00339455	Payee Name: CAIN, JOSEPH THOMAS	
20104692CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	5.00
Warrant Total:		5.00
Warrant #: VW 00339456	Payee Name: CEASER, KENDRIC	
10CR3629 012811	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	812.50
Warrant Total:		812.50
Warrant #: VW 00339457	Payee Name: CENTERPOINT ENERGY	
47167820 012811	1101170100 - 5421300 Facilities Srvs & Maintenance - Gas	92.55
47167838 012811	1101170100 - 5421300 Facilities Srvs & Maintenance - Gas	282.79
47632666 020111	1101170100 - 5421300 Facilities Srvs & Maintenance - Gas	4.42
48091797 012711	1101170100 - 5421300 Facilities Srvs & Maintenance - Gas	648.44
Warrant Total:		1,028.20
Warrant #: VW 00339458	Payee Name: CHAPMAN, BRANDY	
01/10-13/11 TRVL	1101114000 - 5496100 County Clerk - Travel	135.00
1/10-13/11 MEALS	1101114000 - 5496100 County Clerk - Travel	13.00
Warrant Total:		148.00
Warrant #: VW 00339462	Payee Name: CHICAGO TITLE COMPANY	
792212	1101000010 - 4414012 General Government - County Clerk Refund of Fees	16.00
Warrant Total:		16.00
Warrant #: VW 00339463	Payee Name: CHICAGO TITLE-COMMERCIAL	
788471	1101000010 - 4414012 General Government - County Clerk Refund of Fees	16.00
Warrant Total:		16.00
Warrant #: VW 00339464	Payee Name: CHILDRENS CENTER INC, THE	
FCC103110	1101440100 - 5449101 Community Services - Childrens Counseling Serv	5,550.00
FCC113010	1101440100 - 5449101 Community Services - Childrens Counseling Serv	6,735.00
FCC123110	1101440100 - 5449101 Community Services - Childrens Counseling Serv	5,940.00
GCSOP103110	1101440100 - 5449101 Community Services - Childrens Counseling Serv	3,379.91
GCSOP103110A	1101440100 - 5449101 Community Services - Childrens Counseling Serv	3,379.91
GCSOP123110	1101440100 - 5449101 Community Services - Childrens Counseling Serv	3,379.92
Warrant Total:		28,364.74
Warrant #: VW 00339465	Payee Name: CITY OF LA MARQUE	
0160010854 13111	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	62.30
10852000 013111	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	11.25
110003415 013111	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	178.92
160010853 013111	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	126.75
Warrant Total:		379.22
Warrant #: VW 00339466	Payee Name: CITY OF TEXAS CITY	
1960900 012811	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	93.29

Galveston County, Texas

List of County Auditor's Approved Claims For Voucher Warrants Dated 02/09/2011

Invoice Number	Account Info	Amount
1961000 012811	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	142 03
2349100 012811	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	48 77
2614800 012811	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	1,042 48
2615000 012811	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	10.64
Warrant Total:		1,337.21
Warrant #: VW 00339468	Payee Name: CLARK, DIANE	
02CP0124 121610	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	182 00
10CP0007 011811	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	39.00
10CP0119 010711	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	130.00
Warrant Total:		351.00
Warrant #: VW 00339469	Payee Name: COCHRAN, WINSTON E JR	
JAIL DKT 012111	1101122400 - 5431221 County Court #3 - Dupuy - Defense Atty Co Ct	950 00
Warrant Total:		950.00
Warrant #: VW 00339470	Payee Name: COLTZER, ROBERT G	
10CR2977 012811	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	943 15
Warrant Total:		943.15
Warrant #: VW 00339471	Payee Name: COMPASS BANK SBA LENDING	
795974	1101000010 - 4414012 General Government - County Clerk Refund of Fees	10 00
Warrant Total:		10.00
Warrant #: VW 00339472	Payee Name: CPI FOODS INC.	
128115	1101451110 - 5503021 Senior Citizens - Food Cost Title III Supplemt	1,762 50
Warrant Total:		1,762.50
Warrant #: VW 00339474	Payee Name: DADANT & SONS INC.	
858804	1101610200 - 5310000 County Extension - Supplies and Materials	12 51
Warrant Total:		12.51
Warrant #: VW 00339475	Payee Name: DAVIS III, NEAL	
10CR2265 122210	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	351 00
Warrant Total:		351.00
Warrant #: VW 00339476	Payee Name: DELOSANTOS, JIMMY	
11/7-10/10 TRVL	1101223110 - 5495100 Constable Pct #1 - Cherry - Education	193 00
Warrant Total:		193.00
Warrant #: VW 00339478	Payee Name: DIAZ, MARK A	
10CR3748 013111	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	455 00
Warrant Total:		455.00
Warrant #: VW 00339480	Payee Name: DISCOUNT UNIFORMS INTERNATIONAL	
0010427	1101223300 - 5312101 Constable Pct #3 - Rose - Uniform Expense	120 94
Warrant Total:		120.94
Warrant #: VW 00339481	Payee Name: DOVER & FOX	
792905	1101000010 - 4414012 General Government - County Clerk Refund of Fees	16 00
Warrant Total:		16.00

Galveston County, Texas

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<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
Warrant #: VW 00339483	Payee Name: ELECTRONIC PARTS OUTLET	
2068	1101291010 - 5423000 Emergency Management - Maint/Repairs Equipment	175.91
	Warrant Total:	175.91
Warrant #: VW 00339484	Payee Name: ENFORCEMENT VIDEO LP	
STDINV0010532	1101211143 - 5310000 Patrol Division - Supplies and Materials	256.00
	Warrant Total:	256.00
Warrant #: VW 00339485	Payee Name: ENGRAPHICS	
47534	1101151500 - 5310000 Tax Assessor Collector - Supplies and Materials	45.00
	Warrant Total:	45.00
Warrant #: VW 00339486	Payee Name: ENTERGY	
3499447 012611	1101170100 - 5421200 Facilities Srvs & Maintenance - Electricity	211.95
3502451 012611	1101170100 - 5421200 Facilities Srvs & Maintenance - Electricity	20.03
3504647 012611	1101170100 - 5421200 Facilities Srvs & Maintenance - Electricity	9.10
	Warrant Total:	241.08
Warrant #: VW 00339487	Payee Name: EVANS, JULIE PI	
20105942CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	28.00
	Warrant Total:	28.00
Warrant #: VW 00339488	Payee Name: EVELYN RUTH WERLEIN ESTATE	
795500	1101000010 - 4414012 General Government - County Clerk Refund of Fees	12.00
	Warrant Total:	12.00
Warrant #: VW 00339489	Payee Name: FANNING AND FANNING PLLC	
303966 012111	1101122400 - 5431221 County Court #3 - Dupuy - Defense Atty Co Ct	97.50
	Warrant Total:	97.50
Warrant #: VW 00339490	Payee Name: FERROZ, MERCHANT	
10CR2900 013111	1101122100 - 5431221 County Court #1 - Grady - Defense Atty Co Ct	479.05
10CR3169 012811	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	302.90
	Warrant Total:	781.95
Warrant #: VW 00339491	Payee Name: FIDELITY NATIONAL TITLE	
794593	1101000010 - 4414012 General Government - County Clerk Refund of Fees	8.00
	Warrant Total:	8.00
Warrant #: VW 00339493	Payee Name: FINEGAN, SAMUEL K	
09CR0911 012811	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	617.50
09CR2124 012811	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	195.00
	Warrant Total:	812.50
Warrant #: VW 00339494	Payee Name: FIRST FIDELITY TITLE	
793618	1101000010 - 4414012 General Government - County Clerk Refund of Fees	20.00
	Warrant Total:	20.00
Warrant #: VW 00339495	Payee Name: FLEETCOR TECHNOLOGIES DBA CHEVRON	
28331067	1101172111 - 5322010 Fleet Mgmt-Galveston - Auto Fuel Expense	88.74
	Warrant Total:	88.74

Galveston County, Texas

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Invoice Number	Account Info	Amount
Warrant #: VW 00339496	Payee Name: FREEDMAN & PRICE PC	
20106745CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	5.00
	Warrant Total:	5.00
Warrant #: VW 00339497	Payee Name: FRYE AND ASSOCIATES PLLC	
JAIL DKT 012111	1101122400 - 5431221 County Court #3 - Dupuy - Defense Atty Co Ct	950.00
	Warrant Total:	950.00
Warrant #: VW 00339498	Payee Name: FULK, GEORGE BYRON	
301580 012111	1101122200 - 5431222 County Court #2 - Roberts - Defense Atty Co Ct #2	308.75
	Warrant Total:	308.75
Warrant #: VW 00339499	Payee Name: GALVESTON COUNTY HISTORY INC	
ARI1100039	1101513200 - 5504012 Galveston County Museum - Galv Co Historical Commission	7,100.00
	Warrant Total:	7,100.00
Warrant #: VW 00339500	Payee Name: GALVESTON COUNTY WCID #1	
220024920 12411	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	99.20
220024924 012411	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	47.34
230025370 012411	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	203.72
	Warrant Total:	350.26
Warrant #: VW 00339501	Payee Name: GALVESTON ECONOMIC DEVELOPMENT	
2011 GEDP	1101440100 - 5503010 Community Services - Industrial Comm	35,000.00
	Warrant Total:	35,000.00
Warrant #: VW 00339502	Payee Name: GARRETT LAW FIRM,THE	
10CR227 012111	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	346.45
	Warrant Total:	346.45
Warrant #: VW 00339503	Payee Name: GELB, JEFFREY	
03CR3586B 012711	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	438.75
10CR2356 012711	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	1,246.25
309503 012611	1101122200 - 5431222 County Court #2 - Roberts - Defense Atty Co Ct #2	211.25
	Warrant Total:	1,896.25
Warrant #: VW 00339504	Payee Name: GLENN, KRISTENA	
RMB CERT COPIES	1101127100 - 5310000 District Attorney - Supplies and Materials	5.89
	Warrant Total:	5.89
Warrant #: VW 00339505	Payee Name: GRAHAM, CARMEN A	
10CR1774 012611	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	552.50
	Warrant Total:	552.50
Warrant #: VW 00339506	Payee Name: GULF COAST CENTURY	
83270	1101111102 - 5310000 County Commissioner-Pct 2 - Supplies and Materials	75.00
83277	1101111000 - 5310000 County Judge - Supplies and Materials	60.00
83290	1101126100 - 5310000 District Clerk - Supplies and Materials	2,780.00
	Warrant Total:	2,915.00
Warrant #: VW 00339507	Payee Name: GUTHEINZ LAW FIRM LLP	
305729 011911	1101122200 - 5431222 County Court #2 - Roberts - Defense Atty Co Ct #2	195.00

Galveston County, Texas

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<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
307953012611	1101122400 - 5431221 County Court #3 - Dupuy - Defense Atty Co Ct	206.45
Warrant Total:		401.45
Warrant #: VW 00339508	Payee Name: H R M SUPPLY	
1015	1101522020 - 5310000 Parks Department - Supplies and Materials	250.00
1017	1101522020 - 5310000 Parks Department - Supplies and Materials	350.00
Warrant Total:		600.00
Warrant #: VW 00339510	Payee Name: HEAT TRANSFER SOLUTIONS INC	
53422	1101170100 - 5424000 Facilities Srvs & Maintenance - Maint & Repairs Buildings	156.25
53423	1101170100 - 5424000 Facilities Srvs & Maintenance - Maint & Repairs Buildings	188.25
Warrant Total:		344.50
Warrant #: VW 00339511	Payee Name: HENDERSON, DANNA G	
012811 RMB	1101121000 - 5495100 Justice Administration - Education	18.00
Warrant Total:		18.00
Warrant #: VW 00339512	Payee Name: HILL ATTORNEY PLLC, GREG	
10CR1408 012711	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	780.00
10CR2554 012711	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	747.50
Warrant Total:		1,527.50
Warrant #: VW 00339515	Payee Name: HOPKE, KURT S	
10CR1237 012711	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	1,389.85
Warrant Total:		1,389.85
Warrant #: VW 00339516	Payee Name: HOWENSTINE, LISA MARIE	
307594 012711	1101122100 - 5431221 County Court #1 - Grady - Defense Atty Co Ct	160.00
Warrant Total:		160.00
Warrant #: VW 00339517	Payee Name: IBRAHIM & ELLIOTT LLP	
10CR1739 012111	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	715.00
Warrant Total:		715.00
Warrant #: VW 00339518	Payee Name: IBRAHIM & ELLIOTT LLP	
10CR3302 012511	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	276.25
Warrant Total:		276.25
Warrant #: VW 00339519	Payee Name: IESI TX CORP ENVIRO TEX	
1500098365	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	98.95
Warrant Total:		98.95
Warrant #: VW 00339520	Payee Name: JACKSON, CALVIN C	
311452 012611	1101122100 - 5431221 County Court #1 - Grady - Defense Atty Co Ct	520.00
Warrant Total:		520.00
Warrant #: VW 00339521	Payee Name: JAROTH INC	
240746	1101159100 - 5492101 Information Technology - Telephone Expense	78.00
247178	1101159100 - 5492101 Information Technology - Telephone Expense	78.00
Warrant Total:		156.00
Warrant #: VW 00339523	Payee Name: JONES LAW FIRM	

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<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
09CR3467 122210	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	344 50
Warrant Total:		344.50
Warrant #: VW 00339524	Payee Name: JONES, STACEY LEE	
10CR0911 012711	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	455 00
ARI1100040	1101127100 - 5481000 District Attorney - Contract Service	3,599 75
Warrant Total:		4,054.75
Warrant #: VW 00339526	Payee Name: JP MORGAN CHASE	
556753795773 111	1101122300 - 5496100 Probate Court - Sullivan - Travel	192 10
556753795773 111	1101125100 - 5496155 Jury and Trial Expense - Transp & Per Diem - Witnesses	1,985 40
Warrant Total:		2,177.50
Warrant #: VW 00339527	Payee Name: KAUFMANN, CHARLES R	
10CR1685 012411	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	780 00
10CR3159 120210	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	260 00
Warrant Total:		1,040.00
Warrant #: VW 00339532	Payee Name: LAIRD-VALDEZ LLP	
10CR2639 012111	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	130 00
10CR3059 012111	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	130 00
Warrant Total:		260.00
Warrant #: VW 00339533	Payee Name: LAW OFFICE OF KYLE VERRET PLLC, THE	
10CR0619 012111	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	370 50
307980 012811	1101122400 - 5431221 County Court #3 - Dupuy - Defense Atty Co Ct	183 95
Warrant Total:		554.45
Warrant #: VW 00339534	Payee Name: LAW OFFICE OF LINDSAY R LOPEZ, THE	
10CR0975 011011	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	877 50
Warrant Total:		877.50
Warrant #: VW 00339535	Payee Name: LAW OFFICE OF MICHAEL RUSSO PLLC	
02CR0416 121310	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	390 00
307281 012511	1101122400 - 5431221 County Court #3 - Dupuy - Defense Atty Co Ct	325 00
Warrant Total:		715.00
Warrant #: VW 00339536	Payee Name: LAW OFFICE OF ROBERT DAVID MILLER	
06CR1862 012611	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	260 00
Warrant Total:		260.00
Warrant #: VW 00339537	Payee Name: LCR-M LIMITED PARTNERSHIP	
9124807	1101522020 - 5424000 Parks Department - Maint & Repairs Buildings	35 99
Warrant Total:		35.99
Warrant #: VW 00339538	Payee Name: LEATHERS, BILL	
09CR1449 011910	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	1,300 00
10CR1925 012111	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	877 50
JAIL DKT 012811	1101122100 - 5431221 County Court #1 - Grady - Defense Atty Co Ct	950 00
Warrant Total:		3,127.50
Warrant #: VW 00339539	Payee Name: LEE JR, JOHN	

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Invoice Number	Account Info	Amount
011911 MLS	1101190100 - 5496100 County Engineer - Travel	11.84
Warrant Total:		11.84
Warrant #: VW 00339542	Payee Name: LINEBARGER GOGGAN BLAIR & SAMPSON LLP	
JAN 11 JP8-2 FEE	1101000000 - 2291011 General Fund - Due to Collection Agency	461.95
Warrant Total:		461.95
Warrant #: VW 00339543	Payee Name: LINEBARGER GOGGAN BLAIR & SAMPSON LLP	
JAN 11 JP3 FEES	1101000000 - 2291011 General Fund - Due to Collection Agency	4,979.06
Warrant Total:		4,979.06
Warrant #: VW 00339544	Payee Name: LINEBARGER GOGGAN BLAIR & SAMPSON LLP	
JAN 11 JP5 FEES	1101000000 - 2291011 General Fund - Due to Collection Agency	2,926.80
Warrant Total:		2,926.80
Warrant #: VW 00339545	Payee Name: LOVE, PAUL	
10CR2579 012511	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	747.50
Warrant Total:		747.50
Warrant #: VW 00339550	Payee Name: M FOX CURL AND ASSOCIATES PC	
101833 012411	1101122400 - 5431221 County Court #3 - Dupuy - Defense Atty Co Ct	409.50
Warrant Total:		409.50
Warrant #: VW 00339551	Payee Name: MAGNETIC PRODUCTS AND SERVICES INC	
0122300IN	1101159100 - 5310000 Information Technology - Supplies and Materials	1,257.25
0122330IN	1101159100 - 5310000 Information Technology - Supplies and Materials	199.80
Warrant Total:		1,457.05
Warrant #: VW 00339553	Payee Name: MAINLAND BANK	
770150	1101000010 - 4414012 General Government - County Clerk Refund of Fees	20.00
Warrant Total:		20.00
Warrant #: VW 00339554	Payee Name: MALLIA, WAYNE J	
1/23-25/11 CONF	1101121000 - 5495100 Justice Administration - Education	55.00
Warrant Total:		55.00
Warrant #: VW 00339555	Payee Name: MARION, WILLIAM DAVID	
09CP0042 011311	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	39.00
10CP0101 010511	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	78.00
10CP0111 011311	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	58.50
10CP0124 011011	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	234.00
Warrant Total:		409.50
Warrant #: VW 00339558	Payee Name: MATHESON TRI-GAS INC	
0206573	1101211133 - 5310000 Sheriff-Corrections - Supplies and Materials	406.73
Warrant Total:		406.73
Warrant #: VW 00339561	Payee Name: MCGILL LAW FIRM, THE	
308607 012811	1101122400 - 5431221 County Court #3 - Dupuy - Defense Atty Co Ct	292.50
Warrant Total:		292.50
Warrant #: VW 00339562	Payee Name: MCLEOD ALEXANDER POWEL & APFFEL	

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Invoice Number	Account Info	Amount
10CP0027 090210	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	19 50
Warrant Total:		19.50
Warrant #: VW 00339566	Payee Name: MIDDLETON BROWN LLC	
852465	1101190100 - 5481000 County Engineer - Contract Service	7,098 00
Warrant Total:		7,098.00
Warrant #: VW 00339568	Payee Name: MORA JR, J T	
DEC 2010 MLG	1101127100 - 5496301 District Attorney - Auto Mileage	315 00
Warrant Total:		315.00
Warrant #: VW 00339570	Payee Name: MORRIS, PHILLIP W	
305828 012811	1101122200 - 5431222 County Court #2 - Roberts - Defense Atty Co Ct #2	780 00
Warrant Total:		780.00
Warrant #: VW 00339571	Payee Name: MUELLER, DINAH J	
10CP0059 010411	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	195 00
10CP0069 011811	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	396 50
10CP0099 010411	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	65 00
10CP0101 011811	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	312 00
Warrant Total:		968.50
Warrant #: VW 00339572	Payee Name: MUNRO'S UNIFORM SERVICES LTD	
22775	1101522020 - 5426106 Parks Department - Uniform Leasing	16 25
Warrant Total:		16.25
Warrant #: VW 00339574	Payee Name: NEBOUT, JAMES D	
20106034CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	16 00
Warrant Total:		16.00
Warrant #: VW 00339575	Payee Name: NGUYEN, JASON	
1/10-13/11 MLG	1101114000 - 5496301 County Clerk - Auto Mileage	292 98
Warrant Total:		292.98
Warrant #: VW 00339577	Payee Name: NRG ENERGY INC	
B/D 012311	1101170100 - 5421200 Facilities Svcs & Maintenance - Electricity	204,711 05
Warrant Total:		204,711.05
Warrant #: VW 00339578	Payee Name: OFFICE DEPOT INC	
548666431001	1101111000 - 5310000 County Judge - Supplies and Materials	70 00
549491876001	1101223400 - 5310000 Constable Pct #4 - Fullen - Supplies and Materials	40 44
549590514001	1101223400 - 5310000 Constable Pct #4 - Fullen - Supplies and Materials	9 81
549595355001	1101223200 - 5310000 Constable Pct #2 - Petteway - Supplies and Materials	49 79
549597090001	1101223400 - 5310000 Constable Pct #4 - Fullen - Supplies and Materials	29 22
Warrant Total:		199.26
Warrant #: VW 00339581	Payee Name: ONEOK INC	
117946945 012411	1101170100 - 5421300 Facilities Svcs & Maintenance - Gas	134 43
1405266 012411	1101170100 - 5421300 Facilities Svcs & Maintenance - Gas	778 32
141057664 012411	1101170100 - 5421300 Facilities Svcs & Maintenance - Gas	15 00
163076745 012411	1101170100 - 5421300 Facilities Svcs & Maintenance - Gas	4,110 90
164634518 011811	1101170100 - 5421300 Facilities Svcs & Maintenance - Gas	19,406 20

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Invoice Number	Account Info	Amount
165199073 011811	1101170100 - 5421300 Facilities Srvs & Maintenance - Gas	5,637 09
165339436 011811	1101170100 - 5421300 Facilities Srvs & Maintenance - Gas	2,192 58
235817809 011811	1101170100 - 5421300 Facilities Srvs & Maintenance - Gas	612.48
Warrant Total:		32,887.00
Warrant #: VW 00339582 Payee Name: ORTIZ-TAING LAW FIRM PC		
08CP0096 011411	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	273.00
10CP0110 011511	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	195 00
Warrant Total:		468.00
Warrant #: VW 00339583 Payee Name: ORTIZ-TAING LAW FIRM PC		
10CP0108 011511	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	273 00
Warrant Total:		273.00
Warrant #: VW 00339585 Payee Name: OWEN ELECTRIC SUPPLY		
3975431598	1101170100 - 5310000 Facilities Srvs & Maintenance - Supplies and Materials	5 00
3975431681	1101170100 - 5310000 Facilities Srvs & Maintenance - Supplies and Materials	7 50
3975431745	1101522020 - 5424000 Parks Department - Maint & Repairs Buildings	241 84
Warrant Total:		254.34
Warrant #: VW 00339589 Payee Name: PESTMASTER SERVICES INC		
7707	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	125 50
7710	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	175 25
7711	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	34 71
7712	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	39 83
7713	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	55 19
7714	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	39 83
7715	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	50 07
7716	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	175 25
7717	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	110 39
7718	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	39 83
7719	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	39 83
7720	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	75 11
7721	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	34 71
7722	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	30 16
7737	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	39 83
7738	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	200 29
7760	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	839 84
7761	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	165 01
7767	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	55 19
7768	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	195 17
7773	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	34 71
7777	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	59 75
7786	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	64 87
7812	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	44 95
7813	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	44 95
7814	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	39 83
7815	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	34 71
7816	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	175 25
7817	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	34 71
7818	1101170100 - 5481000 Facilities Srvs & Maintenance - Contract Service	250 36
Warrant Total:		3,305.08

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<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
Warrant #: VW 00339590	Payee Name: PINKERTON LAW FIRM	
20104893CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	44.00
	Warrant Total:	44.00
Warrant #: VW 00339591	Payee Name: PIPE MASTER PLUMBING LLC	
1237	1101170100 - 5424000 Facilities Srvs & Maintenance - Maint & Repairs Buildings	327.70
	Warrant Total:	327.70
Warrant #: VW 00339593	Payee Name: PUBLIC SERVICE APPAREL	
1378	1101223110 - 5312101 Constable Pct #1 - Cherry - Uniform Expense	239.91
	Warrant Total:	239.91
Warrant #: VW 00339594	Payee Name: QUINTANILLA, DONNIE	
309799 012511	1101122100 - 5431221 County Court #1 - Grady - Defense Atty Co Ct	97.50
	Warrant Total:	97.50
Warrant #: VW 00339596	Payee Name: RED DOOR HOUSING LLC	
11336TH AVEN	1101443100 - 5447200 Indigent Care & Medication - Emergency Assistance	100.00
	Warrant Total:	100.00
Warrant #: VW 00339597	Payee Name: REDMOND, ALBERT G	
791291	1101000010 - 4414012 General Government - County Clerk Refund of Fees	12.00
	Warrant Total:	12.00
Warrant #: VW 00339598	Payee Name: REGENT & ASSOCIATES	
20105319CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	5.00
	Warrant Total:	5.00
Warrant #: VW 00339599	Payee Name: RIDER, G WILLIAM	
20105555CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	10.00
	Warrant Total:	10.00
Warrant #: VW 00339600	Payee Name: ROPER LAW FIRM, THE	
307928 012111	1101122200 - 5431222 County Court #2 - Roberts - Defense Atty Co Ct #2	260.00
	Warrant Total:	260.00
Warrant #: VW 00339601	Payee Name: SADLER, ANDREA	
10CR1133 012711	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	763.75
	Warrant Total:	763.75
Warrant #: VW 00339602	Payee Name: SAFETY KLEEN CORP	
53101447	1101522020 - 5310000 Parks Department - Supplies and Materials	225.50
	Warrant Total:	225.50
Warrant #: VW 00339605	Payee Name: SAN LEON MUNICIPAL UTILITY DIST	
1035109002 13111	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	26.13
1035395 013111	1101170100 - 5421100 Facilities Srvs & Maintenance - Water	26.13
	Warrant Total:	52.26
Warrant #: VW 00339607	Payee Name: SANTA FE AUTO PARTS INC	
41750	1101211101 - 5423110 Administration Sheriff Dept - Auto Maintenance	80.84

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<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
Warrant Total:		80.84
Warrant #: VW 00339608	Payee Name: SANTA FE SENIOR CITIZENS COUNCIL	
JAN 11	1101451110 - 5503021 Senior Citizens - Food Cost Title III Supplem	500.00
Warrant Total:		500.00
Warrant #: VW 00339609	Payee Name: SAUNDERS, CRAIG W.	
20105071CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	203.00
Warrant Total:		203.00
Warrant #: VW 00339610	Payee Name: SCHINDLER ELEVATOR CORP	
8102741013	1101170100 - 5423701 Facilities Srvs & Maintenance - Maintenance Contracts	7,923.06
Warrant Total:		7,923.06
Warrant #: VW 00339611	Payee Name: SCHWAB, TAYLOR	
10CR3447 012711	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	422.50
Warrant Total:		422.50
Warrant #: VW 00339612	Payee Name: SEARS & BENNETT LLP	
012811 JAIL DKT	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	950.00
09CR3441 012511	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	1,235.00
10CR3334 012111	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	500.00
10CR3687 011911	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	812.50
Warrant Total:		3,497.50
Warrant #: VW 00339613	Payee Name: SECURITY CONNECTIONS INC.	
786935	1101000010 - 4414012 General Government - County Clerk Refund of Fees	20.00
Warrant Total:		20.00
Warrant #: VW 00339614	Payee Name: SENDEJAS, DANNY	
11/7-10/10 TRVL	1101223110 - 5495100 Constable Pct #1 - Cherry - Education	193.00
11/7-10/10 TRVL	1101223110 - 5496100 Constable Pct #1 - Cherry - Travel	251.00
Warrant Total:		444.00
Warrant #: VW 00339615	Payee Name: SERVICE LINK	
795980	1101000010 - 4414012 General Government - County Clerk Refund of Fees	20.00
Warrant Total:		20.00
Warrant #: VW 00339616	Payee Name: SHARP, RICK	
011011 RMB RGST	1101126100 - 5310000 District Clerk - Supplies and Materials	150.00
1/10-13/11 MEALS	1101126100 - 5310000 District Clerk - Supplies and Materials	135.00
Warrant Total:		285.00
Warrant #: VW 00339617	Payee Name: SHEARN MOODY PLAZA CORP	
4TH FLR 013111	1101110000 - 5426250 General Government - Rental Office Space	24,846.58
5TH FLR 013111	1101110000 - 5426250 General Government - Rental Office Space	29,457.87
Warrant Total:		54,304.45
Warrant #: VW 00339618	Payee Name: SHERWIN WILLIAMS PAINT CORP	
51116	1101522020 - 5424000 Parks Department - Maint & Repairs Buildings	55.07
Warrant Total:		55.07

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<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
Warrant #: VW 00339619		
Payee Name: SMALL BUS LENDING		
793627	1101000010 - 4414012 General Government - County Clerk Refund of Fees	5.00
	Warrant Total:	5.00
Warrant #: VW 00339620		
Payee Name: SMITH, JAMES DENNIS		
10CR1902 012811	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	585.00
10CR2076 012811	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	520.00
311517 012811	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	585.00
	Warrant Total:	1,690.00
Warrant #: VW 00339621		
Payee Name: SOLUTIONS4SURE.COM INC		
B110110990V1	1101159100 - 5310000 Information Technology - Supplies and Materials	177.55
	Warrant Total:	177.55
Warrant #: VW 00339622		
Payee Name: STAGG, R. NICOLE		
20105564CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	39.00
	Warrant Total:	39.00
Warrant #: VW 00339624		
Payee Name: STARTEX TITLE CO		
11/2010 OVRPYMT	1101000010 - 4414012 General Government - County Clerk Refund of Fees	144.00
	Warrant Total:	144.00
Warrant #: VW 00339627		
Payee Name: STEVE'S WAREHOUSE TIRES		
67062	1101211101 - 5423110 Administration Sheriff Dept - Auto Maintenance	15.00
67069	1101211101 - 5423110 Administration Sheriff Dept - Auto Maintenance	15.00
67159	1101211101 - 5423110 Administration Sheriff Dept - Auto Maintenance	15.00
	Warrant Total:	45.00
Warrant #: VW 00339628		
Payee Name: STRAUSS, LISA SHAPIRO		
09CR2266 012611	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	715.00
10CR1884 012611	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	715.00
10CR2429 012611	1101122100 - 5431221 County Court #1 - Grady - Defense Atty Co Ct	520.00
	Warrant Total:	1,950.00
Warrant #: VW 00339631		
Payee Name: SULLIVAN, KIMBERLY A		
20106549CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	5.00
	Warrant Total:	5.00
Warrant #: VW 00339632		
Payee Name: SUMMERLIN PLLC, ROBERT E		
10CR2914 012811	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	1,088.75
	Warrant Total:	1,088.75
Warrant #: VW 00339634		
Payee Name: SUNGARD PUBLIC SECTOR INC		
31260	1101159100 - 5423500 Information Technology - Maintenance of Software	8,630.18
	Warrant Total:	8,630.18
Warrant #: VW 00339636		
Payee Name: TARA ENERGY LLC		
20104954CC,997CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	314.04
	Warrant Total:	314.04
Warrant #: VW 00339638		
Payee Name: TEXAS LAW & PSYCHIATRY PLLC		
10CR1685 011411	1101121000 - 5412115 Justice Administration - Psychological Exam	1,200.00

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Invoice Number	Account Info	Amount
10CR2591 011711	1101121000 - 5412115 Justice Administration - Psychological Exam	1,200 00
10CR3668 012011	1101121000 - 5412115 Justice Administration - Psychological Exam	1,200 00
Warrant Total:		3,600.00
Warrant #: VW 00339640	Payee Name: TEXAS MUTUAL INSURANCE COMPANY	
20105686CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	8 00
Warrant Total:		8.00
Warrant #: VW 00339643	Payee Name: THOMA, JOHN	
08CR0840 012111	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	3,774 22
Warrant Total:		3,774.22
Warrant #: VW 00339646	Payee Name: TORMEY & ASSOCIATES/SASE	
794838	1101000010 - 4414012 General Government - County Clerk Refund of Fees	9 00
Warrant Total:		9.00
Warrant #: VW 00339647	Payee Name: TORRES, GILBERT	
20104605CC	1101000010 - 4414012 General Government - County Clerk Refund of Fees	8 00
Warrant Total:		8.00
Warrant #: VW 00339648	Payee Name: TORRES, ROBERTO	
09FD2246 012611	1101122400 - 5431221 County Court #3 - Dupuy - Defense Atty Co Ct	113 75
10CR3295 011411	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	146 25
10CR3872 011211	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	113 75
Warrant Total:		373.75
Warrant #: VW 00339650	Payee Name: TREVINO, ISMAEL	
10CR3647 011911	1101121000 - 5431230 Justice Administration - Court Apptd Atty Dist Courts	211 25
Warrant Total:		211.25
Warrant #: VW 00339653	Payee Name: UNITED PARCEL SERVICE	
0000135W56041	1101159100 - 5481000 Information Technology - Contract Service	18 84
0000135W65041	1101159100 - 5481000 Information Technology - Contract Service	6 65
0000148037041	1101159100 - 5481000 Information Technology - Contract Service	13.03
Warrant Total:		38.52
Warrant #: VW 00339654	Payee Name: UNIVERSITY FEDERAL CREDIT UNION	
753452	1101000010 - 4414012 General Government - County Clerk Refund of Fees	24 00
Warrant Total:		24.00
Warrant #: VW 00339656	Payee Name: UTMB	
30001560742 LAB	1101211131 - 5412112 Identification Division - Sexual Assault Examination	323 82
30001566234 LAB	1101211131 - 5412112 Identification Division - Sexual Assault Examination	283 24
Warrant Total:		607.06
Warrant #: VW 00339657	Payee Name: UTMB	
708X24011037	1101121000 - 5412115 Justice Administration - Psychological Exam	800 00
Warrant Total:		800.00
Warrant #: VW 00339658	Payee Name: VEASLEY III, SPARKS P	
10CR0615 012511	1101121000 - 5416000 Justice Administration - Prof Serv Investigators	300 00
Warrant Total:		300.00

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Invoice Number	Account Info	Amount
Warrant #: VW 00339661	Payee Name: VOICE4NET.COM	
2927	1101159100 - 5481000 Information Technology - Contract Service	50 00
	Warrant Total:	50.00
Warrant #: VW 00339662	Payee Name: WEBER, MEHAFFY	
790222	1101000010 - 4414012 General Government - County Clerk Refund of Fees	24 00
	Warrant Total:	24.00
Warrant #: VW 00339663	Payee Name: WEBER, WINIFRED B	
310089 012711	1101122400 - 5431221 County Court #3 - Dupuy - Defense Atty Co Ct	260 00
	Warrant Total:	260.00
Warrant #: VW 00339664	Payee Name: WELLS FARGO HOME MORTGAGE	
789947	1101000010 - 4414012 General Government - County Clerk Refund of Fees	30 00
	Warrant Total:	30.00
Warrant #: VW 00339666	Payee Name: WEST PUBLISHING CORPORATION	
821994638	1101114000 - 5317000 County Clerk - Books & Periodicals	133 17
	Warrant Total:	133.17
Warrant #: VW 00339667	Payee Name: WESTMINSTER TITLE AGENCY	
796407	1101000010 - 4414012 General Government - County Clerk Refund of Fees	8 00
	Warrant Total:	8.00
Warrant #: VW 00339668	Payee Name: ZIENTEK, JOSHUA	
306236 012811	1101122200 - 5431222 County Court #2 - Roberts - Defense Atty Co Ct #2	578 50
	Warrant Total:	578.50
FUND 1101 TOTAL:		512,232.93
FUND: 2101 Cnty Records Mgt & Preservation		
Warrant #: VW 00339576	Payee Name: NOVELLI JR, ROSS	
ARI1100035	2101116020 - 5481000 County Records Management - Contract Service	10,000 00
	Warrant Total:	10,000.00
FUND 2101 TOTAL:		10,000.00
FUND: 2211 Law Library		
Warrant #: VW 00339559	Payee Name: MATTHEW BENDER & COMPANY INC	
0229882H	2211129100 - 5317000 Law Library - Books & Periodicals	144 08
	Warrant Total:	144.08
Warrant #: VW 00339625	Payee Name: STATE BAR OF TEXAS	
225677	2211129100 - 5317000 Law Library - Books & Periodicals	81 25
228355	2211129100 - 5317000 Law Library - Books & Periodicals	81 25
228358	2211129100 - 5317000 Law Library - Books & Periodicals	162 50
228558	2211129100 - 5317000 Law Library - Books & Periodicals	81 25
	Warrant Total:	406.25

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<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
Warrant #: VW 00339666	Payee Name: WEST PUBLISHING CORPORATION	
821726010	2211129100 - 5317000 Law Library - Books & Periodicals	344.30
	Warrant Total:	344.30
	FUND 2211 TOTAL:	894.63
FUND: 2212 Mediation Services Prog Fund		
Warrant #: VW 00339423	Payee Name: AMERSON, RODGER DAN	
11CP0004 012611	2212125300 - 5432011 Mediation Services - Mediation Services	300.00
	Warrant Total:	300.00
Warrant #: VW 00339603	Payee Name: SALINSKY LAW OFFICES	
61631 091610	2212125300 - 5432011 Mediation Services - Mediation Services	187.50
	Warrant Total:	187.50
	FUND 2212 TOTAL:	487.50
FUND: 2220 Adult Probation Fund		
Warrant #: VW 00339438	Payee Name: BELL, PAULA	
JAN 2011 MLG	2220255101 - 5496100 Adult Probation - Travel	99.65
	Warrant Total:	99.65
Warrant #: VW 00339479	Payee Name: DICKEY, WILLIAM SHANE	
JAN 2011 MLG	2220255101 - 5496100 Adult Probation - Travel	29.58
	Warrant Total:	29.58
	FUND 2220 TOTAL:	129.23
FUND: 2230 Juvenile Justice Fund		
Warrant #: VW 00339473	Payee Name: CURRENT USA INC	
W177112801017	2230256100 - 5310000 Juvenile Justice - Supplies and Materials	167.87
	Warrant Total:	167.87
Warrant #: VW 00339541	Payee Name: LIGGIOS TIRE AND SERVICE CENTER INC	
175418	2230256105 - 5423110 Juv Justice - Administration - Auto Maintenance	110.00
175445	2230256105 - 5423110 Juv Justice - Administration - Auto Maintenance	240.94
	Warrant Total:	350.94
Warrant #: VW 00339557	Payee Name: MASTER WORD SERVICE INC	
39389	2230256130 - 5431101 Court - Professional Srv Interpreter	245.98
	Warrant Total:	245.98
Warrant #: VW 00339560	Payee Name: MAXWELL, BONITA G	
JAN 2011 MLG	2230256105 - 5496301 Juv Justice - Administration - Auto Mileage	157.08
	Warrant Total:	157.08

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<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
Warrant #: VW 00339595	Payee Name: RAMIREZ, VICTORIA	
JAN 2011 MLG	2230256100 - 5496301 Juvenile Justice - Auto Mileage	108.12
	Warrant Total:	108.12
Warrant #: VW 00339606	Payee Name: SANDERS, EARNESTINE LYNCH	
JAN 2011 MLG	2230256100 - 5496301 Juvenile Justice - Auto Mileage	169.32
	Warrant Total:	169.32
Warrant #: VW 00339659	Payee Name: VENSO, NORMA	
201102	2230256130 - 5431403 Court - Relief Masters Referee	250.00
	Warrant Total:	250.00
FUND 2230 TOTAL:		1,449.31
FUND: 2242 Sheriff's Seizure Aft 10/89		
Warrant #: VW 00339604	Payee Name: SAM'S CLUB DIRECT	
002802	2242211124 - 5310001 Sheriff's Seizure Aft 10/89 - Depart Supplies-Non Cap FFE	336.44
	Warrant Total:	336.44
FUND 2242 TOTAL:		336.44
FUND: 2250 Law Enforcement Education Fund		
Warrant #: VW 00339642	Payee Name: TEXAS STATE UNIVERSITY SAN MARCOS	
3/6-9/11 MONTEZ	2250211510 - 5502205 Contin Education-State Alloc - Const #5 Cont Ed Exp	100.00
	Warrant Total:	100.00
FUND 2250 TOTAL:		100.00
FUND: 2301 Road & Bridge Fund		
Warrant #: VW 00339419	Payee Name: ALLEN, WINNIE	
JAN 2011 MLG	2301312110 - 5496100 Administration - Travel	22.66
	Warrant Total:	22.66
Warrant #: VW 00339421	Payee Name: AMERICAN FENCE AND SUPPLY CO	
000116343	2301312120 - 5319222 FM & Lateral Road - Materials Traffic Signs	458.00
	Warrant Total:	458.00
Warrant #: VW 00339449	Payee Name: BROOKSIDE EQUIP SALES INC	
IL19582	2301312120 - 5423000 FM & Lateral Road - Maint/Repairs Equipment	121.15
	Warrant Total:	121.15
Warrant #: VW 00339460	Payee Name: CHASTANGS ENTERPRISES	
594690	2301312120 - 5423000 FM & Lateral Road - Maint/Repairs Equipment	83.09
	Warrant Total:	83.09
Warrant #: VW 00339461	Payee Name: CHERRY CRUSHED CONCRETE	

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<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
127928	2301312120 - 5353014 FM & Lateral Road - Materials Flexible Base	4,777 13
128035	2301312120 - 5353014 FM & Lateral Road - Materials Flexible Base	2,330 07
Warrant Total:		7,107.20
Warrant #: VW 00339477	Payee Name: DIAMOND HYDRAULICS INC	
41334	2301312120 - 5423000 FM & Lateral Road - Maint/Repairs Equipment	183 12
Warrant Total:		183.12
Warrant #: VW 00339492	Payee Name: FILLINGAME INC	
IVC36921	2301312120 - 5423000 FM & Lateral Road - Maint/Repairs Equipment	169 00
Warrant Total:		169.00
Warrant #: VW 00339528	Payee Name: KIWI TIRE SHOP	
1653	2301312120 - 5423000 FM & Lateral Road - Maint/Repairs Equipment	175 00
Warrant Total:		175.00
Warrant #: VW 00339552	Payee Name: MAGNUSON HARDWARE LP	
2737	2301312120 - 5310000 FM & Lateral Road - Supplies and Materials	415 19
Warrant Total:		415.19
Warrant #: VW 00339556	Payee Name: MARTIN RESOURCE MANAGEMENT	
279489	2301312120 - 5353011 FM & Lateral Road - Road Oils & Emulsions	3,508.00
279490	2301312120 - 5353011 FM & Lateral Road - Road Oils & Emulsions	3,514 00
Warrant Total:		7,022.00
Warrant #: VW 00339563	Payee Name: MCREE FORD INC	
337005	2301312120 - 5423000 FM & Lateral Road - Maint/Repairs Equipment	112 00
Warrant Total:		112.00
Warrant #: VW 00339572	Payee Name: MUNRO'S UNIFORM SERVICES LTD	
22261	2301312120 - 5312101 FM & Lateral Road - Uniform Expense	74 55
Warrant Total:		74.55
Warrant #: VW 00339573	Payee Name: MUSTANG RENTAL SERVICES INC	
02059060	2301312120 - 5426100 FM & Lateral Road - Equipment Rental/Lease	3,472 31
Warrant Total:		3,472.31
Warrant #: VW 00339633	Payee Name: SUN COAST RESOURCES INC	
90820825	2301312120 - 5322010 FM & Lateral Road - Auto Fuel Expense	9,185 17
Warrant Total:		9,185.17
Warrant #: VW 00339651	Payee Name: TUBING AND METRICS HYDRAULICS INC	
60523	2301312120 - 5423000 FM & Lateral Road - Maint/Repairs Equipment	388 46
60545	2301312120 - 5423000 FM & Lateral Road - Maint/Repairs Equipment	53 13
60546	2301312120 - 5423000 FM & Lateral Road - Maint/Repairs Equipment	147 60
Warrant Total:		589.19
FUND 2301 TOTAL:		29,189.63

FUND: 2370 Flood Control Fund

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<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
Warrant #: VW 00339440	Payee Name: BFI WASTE SERVICES OF TEXAS LP	
0855000397537	2370296121 - 5481000 Seawall Maintenance - Contract Service	70.00
	Warrant Total:	70.00
Warrant #: VW 00339522	Payee Name: JMB TIRE AND APPLIANCE CO	
039093	2370296121 - 5423000 Seawall Maintenance - Maint/Repairs Equipment	560.04
	Warrant Total:	560.04
Warrant #: VW 00339552	Payee Name: MAGNUSON HARDWARE LP	
2729	2370296100 - 5310001 Flood Control - Depart Supplies-Non Cap FFE	959.96
2729	2370296121 - 5310001 Seawall Maintenance - Depart Supplies-Non Cap FFE	959.96
2730	2370296100 - 5310001 Flood Control - Depart Supplies-Non Cap FFE	2,071.93
	Warrant Total:	3,991.85
Warrant #: VW 00339563	Payee Name: MCREE FORD INC	
336416	2370296121 - 5423000 Seawall Maintenance - Maint/Repairs Equipment	177.02
	Warrant Total:	177.02
Warrant #: VW 00339645	Payee Name: TOM-MAC INC	
54217	2370000000 - 2070001 Flood Control - Contract Payable Retainage	-951.38
54217	2370190100 - 5734309 County Engineer - West Gum Bayou Clearing	19,027.50
	Warrant Total:	18,076.12
Warrant #: VW 00339665	Payee Name: WELSH, MATTHEW SEAN	
JAN 2011 MLG	2370296110 - 5496301 Building Inspector - Auto Mileage	483.50
	Warrant Total:	483.50
FUND 2370 TOTAL:		23,358.53
FUND: 2410 Mosquito Control District Fund		
Warrant #: VW 00339513	Payee Name: HOME DEPOT	
9170964	2410411100 - 5424000 Mosquito Control District - Maint & Repairs Buildings	40.42
	Warrant Total:	40.42
Warrant #: VW 00339541	Payee Name: LIGGIOS TIRE AND SERVICE CENTER INC	
175456	2410411100 - 5310000 Mosquito Control District - Supplies and Materials	310.20
	Warrant Total:	310.20
Warrant #: VW 00339623	Payee Name: STANDARD STEEL SUPPLY INC	
510711	2410411100 - 5424000 Mosquito Control District - Maint & Repairs Buildings	197.82
	Warrant Total:	197.82
Warrant #: VW 00339633	Payee Name: SUN COAST RESOURCES INC	
90814207	2410411100 - 5310000 Mosquito Control District - Supplies and Materials	637.65
	Warrant Total:	637.65
Warrant #: VW 00339644	Payee Name: TIBALDOS FEED AND SUPPLY	
350680	2410411100 - 5310000 Mosquito Control District - Supplies and Materials	162.70
	Warrant Total:	162.70

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<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
FUND 2410 TOTAL:		1,348.79
FUND: 2841 Juvenile Probation-State Aid		
Warrant #: VW 00339525	Payee Name: JOSEPH, JUNE	
JAN 2011 MLG	2841256183 - 5496301 JPO Cash match - Auto Mileage	171.36
Warrant Total:		171.36
Warrant #: VW 00339569	Payee Name: MORGAN, LE'NARD D.	
JAN 2011 MLG	2841256183 - 5496301 JPO Cash match - Auto Mileage	92.31
Warrant Total:		92.31
FUND 2841 TOTAL:		263.67
FUND: 2842 Community Corrections		
Warrant #: VW 00339444	Payee Name: BLOW, ADRIENNE M	
JAN 2011 MLG	2842256177 - 5496301 Community Corr "Y" Grant - Auto Mileage	101.49
Warrant Total:		101.49
Warrant #: VW 00339586	Payee Name: PARISH, ERVIN R	
JAN 2011 MLG	2842256177 - 5496301 Community Corr "Y" Grant - Auto Mileage	90.78
Warrant Total:		90.78
FUND 2842 TOTAL:		192.27
FUND: 2864 Auto Crimes Task Force Grant		
Warrant #: VW 00339660	Payee Name: VERIZON	
6529543203	2864211127 - 5492100 Auto Task Force - Wireless MCT Service	335.08
Warrant Total:		335.08
FUND 2864 TOTAL:		335.08
FUND: 2893 HMGP - IKE		
Warrant #: VW 00339531	Payee Name: KONARIK, VICTOR & PATRICE	
R172188 HMGP	2893289015 - 5502212 HMGP TWIA Settlements - TWIA Refunds	25,206.10
Warrant Total:		25,206.10
Warrant #: VW 00339629	Payee Name: STRONACH, DONALD A.	
TWIA R172899	2893289015 - 5502212 HMGP TWIA Settlements - TWIA Refunds	38,796.98
Warrant Total:		38,796.98
FUND 2893 TOTAL:		64,003.08
FUND: 2914 CDBG Housing Program		

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Invoice Number	Account Info	Amount
Warrant #: VW 00339422		
Payee Name: AMERICAN HOME BUILDERS INC.		
JL0310891	2914152512 - 5519010 Ownr-Occupied Reconstruction - Contractor - Construction	26,658.34
	Warrant Total:	26,658.34
Warrant #: VW 00339441		
Payee Name: BGB INTERESTS LP		
107022	2914152512 - 5519010 Ownr-Occupied Reconstruction - Contractor - Construction	37,241.57
	Warrant Total:	37,241.57
Warrant #: VW 00339453		
Payee Name: BURGLI HOMES PROMENADE HOMES JV		
102	2914152512 - 5519010 Ownr-Occupied Reconstruction - Contractor - Construction	65,463.00
102	2914152514 - 5519010 Ownr-Occupied Elevation - Contractor - Construction	8,073.00
	Warrant Total:	73,536.00
FUND 2914 TOTAL:		137,435.91
FUND: 2962 Parks/Beaches Project Grants f		
Warrant #: VW 00339529		
Payee Name: KLEEN JANITORIAL SUPPLY COMPANY		
1250	2962522060 - 5310000 Clear Creek Clean up Grt - Supplies and Materials	503.15
	Warrant Total:	503.15
FUND 2962 TOTAL:		503.15
FUND: 2994 Disaster Recovery - Ike		
Warrant #: VW 00339427		
Payee Name: B.L. ALEXANDER ENTERPRISES INC		
6973	2994299757 - 5481000 Various Parks-Small Projects - Contract Service	25,433.00
	Warrant Total:	25,433.00
Warrant #: VW 00339437		
Payee Name: BECK DISASTER RECOVERY INC		
0106152	2994299152 - 5481000 JWW-152-Priv Prop Debris Rmvl - Contract Service	605.00
0106172	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	985.00
0106173	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	167.50
0106559	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	100.00
0106564	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	122.50
0106579	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	997.50
0106614	2994299152 - 5481000 JWW-152-Priv Prop Debris Rmvl - Contract Service	167.50
0107903	2994299152 - 5481000 JWW-152-Priv Prop Debris Rmvl - Contract Service	112.50
0107957	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	302.50
0107997	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	460.00
0109052	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	45.00
0109100	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	45.00
0109111	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	45.00
0109129	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	135.00
0109146	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	450.00
0109174	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	157.50
0109179	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	202.50
0109188	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	67.50
0109192	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	45.00
0109193	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	90.00
0109194	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	112.50

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Invoice Number	Account Info	Amount
0109199	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	157 50
0109252	2994299147 - 5481000 JWW-147-Priv Prop Debris Rmvl - Contract Service	45 00
0109253	2994299147 - 5481000 JWW-147-Priv Prop Debris Rmvl - Contract Service	22 50
0109255	2994299147 - 5481000 JWW-147-Priv Prop Debris Rmvl - Contract Service	45 00
0109256	2994299147 - 5481000 JWW-147-Priv Prop Debris Rmvl - Contract Service	90 00
0109257	2994299147 - 5481000 JWW-147-Priv Prop Debris Rmvl - Contract Service	45 00
0109263	2994299147 - 5481000 JWW-147-Priv Prop Debris Rmvl - Contract Service	45 00
0109270	2994299147 - 5481000 JWW-147-Priv Prop Debris Rmvl - Contract Service	112 50
0109272	2994299147 - 5481000 JWW-147-Priv Prop Debris Rmvl - Contract Service	67 50
0109273	2994299147 - 5481000 JWW-147-Priv Prop Debris Rmvl - Contract Service	45 00
0109274	2994299147 - 5481000 JWW-147-Priv Prop Debris Rmvl - Contract Service	45 00
0110802	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	202 50
0110806	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	90 00
0110823	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	112 50
0110824	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	112 50
0110826	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	585 00
0110827	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0110828	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0110829	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0110830	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0110831	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0110832	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0110834	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	90 00
0110858	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	90 00
0110896	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	90 00
0110957	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0110964	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	112 50
0110969	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	225.00
0110970	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	382 50
0110974	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	45 00
0111072	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0111073	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0111076	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0111080	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	90 00
0111102	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0111143	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	22 50
0111150	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	157 50
0111268C	2994299143 - 5481000 JWW-143-Priv Prop Debris Rmvl - Contract Service	42,572 50
0111319	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	67 50
0111320	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	225 00
0111326	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	202.50
0111332	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	360 00
0111350	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	292 50
0111366	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	112 50
0111368	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	157 50
0111370	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	135 00
0111375	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	67 50
0111395	2994299147 - 5481000 JWW-147-Priv Prop Debris Rmvl - Contract Service	22 50
0111403	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	67 50
0111404	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	22 50
0111407	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	45 00
0111410	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	67 50
0111430	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	180 00
0111431	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	90 00

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List of County Auditor's Approved Claims For Voucher Warrants Dated 02/09/2011

Invoice Number	Account Info	Amount
0111436	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	90 00
0111442	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	45 00
0111444	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	45 00
0111445	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	22 50
0111449	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	45 00
0111450	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	67 50
0111451	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	90 00
0111454	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	135 00
0111455	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	135 00
0111456	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	112 50
0111458	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	225 00
0111479	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	67 50
0111489	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	90 00
0111490	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	112 50
0111493	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	112 50
0111496	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	90 00
0111502	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	135 00
0111503	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	135 00
0111509	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	292 50
0111516	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	22 50
0111518	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0111519	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	90 00
0111523	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	45 00
0111524	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	67 50
0111525	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	90 00
0111526	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	90 00
0111527	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	22 50
0111528	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	45 00
0111531	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	112 50
0111537	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	292 50
0111540	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	90 00
0111542	2994299147 - 5481000 JWW-147-Priv Prop Debris Rmvl - Contract Service	90 00
0111543	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	45 00
0111545	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	180 00
0111546	2994299146 - 5481000 JWW-146-Priv Prop Debris Rmvl - Contract Service	22 50
0111547	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	135 00
0111550	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	67 50
0111553	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	337 50
0111554	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	22 50
0111555	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	135 00
0111557	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	135 00
0111558	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	202 50
0111563	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	90 00
0111565	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	45 00
0111567	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	67 50
0111568	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	22 50
0111570	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	135 00
0111571	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	67 50
0111572	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	67 50
0111573	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	22 50
0111576	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	90 00
0111577	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	112 50
0111578	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	112 50
0111579	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	180 00

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List of County Auditor's Approved Claims For Voucher Warrants Dated 02/09/2011

Invoice Number	Account Info	Amount
0111580	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	202 50
0111581	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0111585	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	135 00
0111586A	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	90 00
0111622	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	225 00
0111641	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	247 50
0111642	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	22 50
0111643	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	22 50
0111646	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	112 50
0111647	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	67 50
0111648	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	67 50
0111651	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	157 50
0111652	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	22 50
0111653	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	225 00
0111655	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0111656	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	45 00
0111660	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	135 00
0111662	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	157 50
0111663	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	90 00
0111664	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	67 50
0111943C	2994299143 - 5481000 JWW-143-Priv Prop Debris Rmvl - Contract Service	46,222 50
0111943D	2994299143 - 5481000 JWW-143-Priv Prop Debris Rmvl - Contract Service	50,902 50
0112223	2994299148 - 5481000 JWW-148-Priv Prop Debris Rmvl - Contract Service	135 00
0112227	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	135 00
0112228	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	67 50
0112229	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	472 50
0112232	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	67 50
0112233	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	270 00
0112235	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	247 50
0112236	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	90 00
0112237	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	22 50
0112238	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	22 50
0112246	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	45 00
0112247	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	180 00
0112250	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	180 00
0112251	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	247 50
0112252	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	247 50
0112254	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	67 50
0112256	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	180 00
0112257	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	292 50
0112260	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	135 00
0112261	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	90 00
0112270	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	112 50
0112271	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	112 50
0112272	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	90 00
0112273	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	90 00
0112275	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	45 00
0112276	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	45 00
0112277	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	67 20
0112278	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	180 00
0112280	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	135 00
0112281	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	90 00
0112282	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	112 50
0112284	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	67 50

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Invoice Number	Account Info	Amount
0112285	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	67 50
0112286	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	67 50
0112287	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	67 50
0112288	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	90 00
0112289	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	45 00
0112292	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	67 50
0112293	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	45 00
0112294	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	67 50
0112295	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	90 00
0112296	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	90 00
0112297	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	990 00
0112298	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	135 00
0112299	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	135 00
0112300	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	450 00
0112301	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	247 50
0112302	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	292 50
0112312	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	45 00
0112323	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	90 00
0112324	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	22 50
0112326	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	90 00
0112327	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	22 50
0112328	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	22 50
0112329	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	22 50
0112330	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	45 00
0112331	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	45 00
0112332	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	22 50
0112333	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	45 00
0112334	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	45 00
0112340	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	135 00
0112341	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	135 00
0112342	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	45 00
0112345	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	247 50
0112346	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	90 00
0112347	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	90 00
0112348	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	45 00
0112351	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	67 50
0112352	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	67 50
0112353	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	45 00
0112354	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	67 50
0112356	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	135 00
0112357	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	135 00
0112362	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	135 00
0112363	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	135 00
0112365	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	67 50
0112366	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	292 50
0112370	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	67 50
0112371	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	135 00
0112372	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	22 50
0112373	2994299149 - 5481000 JWW-149-Priv Prop Debris Rmvl - Contract Service	112 50
0112374	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	90 00
0112375	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	157 50
0112377	2994299145 - 5481000 JWW-145-Priv Prop Debris Rmvl - Contract Service	202 50
0112438C	2994299143 - 5481000 JWW-143-Priv Prop Debris Rmvl - Contract Service	57,275 00
0112438D	2994299143 - 5481000 JWW-143-Priv Prop Debris Rmvl - Contract Service	31,237 50

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Invoice Number	Account Info	Amount
0112438F	2994299143 - 5481000 JWW-143-Priv Prop Debris Rmvl - Contract Service	770 00
0112561	2994299150 - 5481000 JWW-150-Priv Prop Debris Rmvl - Contract Service	45 00
011405	2994299151 - 5481000 JWW-151-Priv Prop Debris Rmvl - Contract Service	112 50
Warrant Total:		258,447.20

Warrant #: VW 00339459	Payee Name: CHARNOCK AND COMPANY INC	
2 012511	2994000000 - 2070001 Disaster Recovery - Ike - Contract Payable Retamage	-10,896.56
2 012511	2994299735 - 5481000 Bayshore Pier & Ball Field - Contract Service	217,931.14
Warrant Total:		207,034.58

Warrant #: VW 00339637	Payee Name: TEXAS ART SUPPLY	
SI00272143	2994299537 - 5481000 Galveston County Museum - Contract Service	47 96
Warrant Total:		47.96

FUND 2994 TOTAL: 490,962.74

FUND: 3120 Limited Tax Cnty Bldg Bds Sr09

Warrant #: VW 00339424	Payee Name: ARDENT CONSTRUCTION LLC	
8 020411	3120179331 - 5722000 Animal Resource Center - Construction Bldg Capital Outl	42,761 68
Warrant Total:		42,761.68

Warrant #: VW 00339442	Payee Name: BIG 4 STEEL SERVICES LP	
110108	3120000000 - 2070001 Limited Tax Cnty Bldg Bds Sr09 - Contract Payable Retaina	-1,376 80
110108	3120179331 - 5722000 Animal Resource Center - Construction Bldg Capital Outl	27,535 90
Warrant Total:		26,159.10

Warrant #: VW 00339445	Payee Name: BOEDEKER CONSTRUCTION INC	
4 ARC 012711	3120000000 - 2070001 Limited Tax Cnty Bldg Bds Sr09 - Contract Payable Retaina	-2,324 95
4 ARC 012711	3120179331 - 5722000 Animal Resource Center - Construction Bldg Capital Outl	46,499 00
Warrant Total:		44,174.05

Warrant #: VW 00339514	Payee Name: HOOVER, JOSEPH A	
ELEVEN	3120179119 - 5728121 Ag Ext Svc at Carbide Park - Capital Const-Architect Fees	8,294 40
Warrant Total:		8,294.40

Warrant #: VW 00339546	Payee Name: LOWERY MASONRY LLC	
2 013111	3120000000 - 2070001 Limited Tax Cnty Bldg Bds Sr09 - Contract Payable Retaina	-3,887 60
2 013111	3120179331 - 5722000 Animal Resource Center - Construction Bldg Capital Outl	77,752 00
Warrant Total:		73,864.40

Warrant #: VW 00339548	Payee Name: LUCAS CONSTRUCTION CO INC	
6 013111	3120000000 - 2070001 Limited Tax Cnty Bldg Bds Sr09 - Contract Payable Retaina	-145 00
6 013111	3120179331 - 5722000 Animal Resource Center - Construction Bldg Capital Outl	2,900 00
Warrant Total:		2,755.00

Warrant #: VW 00339564	Payee Name: MESA MECHANICAL INC	
1 012511 ARC	3120000000 - 2070001 Limited Tax Cnty Bldg Bds Sr09 - Contract Payable Retaina	-1,280 00
1 012511 ARC	3120179331 - 5722000 Animal Resource Center - Construction Bldg Capital Outl	25,600 00
Warrant Total:		24,320.00

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<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
Warrant #: VW 00339567		
Payee Name: MITCHELL CHUOKE PLUMBING CO		
4 020211 ARC	3120000000 - 2070001 Limited Tax Cnty Bldg Bds Sr09 - Contract Payable Retaina	-3,750 00
4 020211 ARC	3120179331 - 5722000 Animal Resource Center - Construction Bldg Capital Outl	75,000 00
Warrant Total:		71,250.00
Warrant #: VW 00339588		
Payee Name: PAUL ENGINEERING INC		
1225	3120179135 - 5728121 Mid-County Annex - Capital Const-Architect Fees	6,750 00
1237	3120179135 - 5728121 Mid-County Annex - Capital Const-Architect Fees	5,150 00
Warrant Total:		11,900.00
Warrant #: VW 00339626		
Payee Name: STEFFEY, MICHAEL		
20100009	3120179135 - 5728121 Mid-County Annex - Capital Const-Architect Fees	12,800 00
Warrant Total:		12,800.00
Warrant #: VW 00339649		
Payee Name: TREADWELL ELECTRIC CONTRACTORS INC		
4 022811	3120000000 - 2070001 Limited Tax Cnty Bldg Bds Sr09 - Contract Payable Retaina	-2,500 00
4 022811	3120179331 - 5722000 Animal Resource Center - Construction Bldg Capital Outl	50,000 00
Warrant Total:		47,500.00
Warrant #: VW 00339652		
Payee Name: UNBEHAGEN, O C		
ARI1100036	3120179010 - 5481000 Administration - Contract Service	6,666 66
Warrant Total:		6,666.66
FUND 3120 TOTAL:		372,445.29
FUND: 3306 Road Capital Project Fund-1987		
Warrant #: VW 00339482		
Payee Name: DURWOOD GREENE CONSTRUCTION CO		
4 RTNG 122310	3306000000 - 2070001 1987 Road Bonds - Contract Payable Retainage	24,563 60
Warrant Total:		24,563.60
FUND 3306 TOTAL:		24,563.60
FUND: 3307 Unltd Tax Road Bonds Sr 2003B		
Warrant #: VW 00339482		
Payee Name: DURWOOD GREENE CONSTRUCTION CO		
4 RTNG 122310	3307000000 - 2070001 Unltd Tx Road Bonds Sr 2003B - Contract Payable Retainage	27,529.86
Warrant Total:		27,529.86
FUND 3307 TOTAL:		27,529.86
FUND: 3308 Unlimited Tax Rd Bds Ser 2001		
Warrant #: VW 00339635		
Payee Name: SWCA INC		
16569009	3308312200 - 5731009 Fort Travis Park - Professional Svcs-Rd Const	45 64
Warrant Total:		45.64
FUND 3308 TOTAL:		45.64

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List of County Auditor's Approved Claims For Voucher Warrants Dated 02/09/2011

<u>Invoice Number</u>	<u>Account Info</u>	<u>Amount</u>
FUND: 3312 Unltd Tax Road Bonds Sr 2009		
Warrant #: VW 00339451	Payee Name: BROWN & GAY ENGINEERS, INC.	
111127	3312312111 - 5731173 Non-County Roads - 6th Street	3,599.50
	Warrant Total:	3,599.50
Warrant #: VW 00339467	Payee Name: CIVILTECH ENGINEERING, INC.	
0013365	3312312112 - 5731142 County Road - Jack Brooks Park	4,029.46
	Warrant Total:	4,029.46
Warrant #: VW 00339530	Payee Name: KLOTZ ASSOC INC	
111060	3312312111 - 5731128 Non-County Roads - Melody Lane	8,676.66
	Warrant Total:	8,676.66
Warrant #: VW 00339547	Payee Name: LUCAS CONSTRUCTION CO INC	
6 123110	3312000000 - 2070001 Unltd Tax Road Bonds Sr 2009 - Contract Payable Retainage	24,773.83
	Warrant Total:	24,773.83
Warrant #: VW 00339565	Payee Name: METRO CITY CONSTRUCTION LP	
2274	3312000000 - 2070001 Unltd Tax Road Bonds Sr 2009 - Contract Payable Retainage	-16,239.35
2274	3312312112 - 5731139 County Road - Algoa Friendswood Rd	324,786.91
	Warrant Total:	308,547.56
Warrant #: VW 00339584	Payee Name: OTHON INC	
6559	3312312111 - 5731124 Non-County Roads - Dolphin Drive	1,410.23
	Warrant Total:	1,410.23
Warrant #: VW 00339587	Payee Name: PATE ENGINEERS INC	
130600500	3312312111 - 5731126 Non-County Roads - Owens Drive	5,674.70
	Warrant Total:	5,674.70
	FUND 3312 TOTAL:	356,711.94
FUND: 6123 Group Insurance Fund		
Warrant #: VW 00339509	Payee Name: HCA LOCKBOX	
ARI1100033	6123155021 - 5481000 Group Insurance - Contract Service	4,328.31
	Warrant Total:	4,328.31
Warrant #: VW 00339540	Payee Name: LEOPOLD, WILLIAM E	
ARI1100034	6123155021 - 5481000 Group Insurance - Contract Service	2,975.00
	Warrant Total:	2,975.00
	FUND 6123 TOTAL:	7,303.31
FUND: 6130 Self Insurance Reserve Fund		
Warrant #: VW 00339630	Payee Name: SULLIVAN, DWIGHT D	
RMB BOND 1066414	6130151431 - 5491700 General Self Insurance - Insurance Public Officials	5,000.00
	Warrant Total:	5,000.00

Galveston County, Texas

List of County Auditor's Approved Claims For Voucher Warrants Dated 02/09/2011

Invoice Number	Account Info	Amount
Warrant #: VW 00339639	Payee Name: TEXAS LAWYERS INSURANCE EXCHANGE	
1/11-1/12 MALLIA	6130151431 - 5491701 General Self Insurance - Insurance Emp Blanket Bonds	1,500 00
2011 DUPUY C M	6130151431 - 5491701 General Self Insurance - Insurance Emp Blanket Bonds	1,500 00
2011 SULLIVAN K	6130151431 - 5491701 General Self Insurance - Insurance Emp Blanket Bonds	1,500 00
	Warrant Total:	4,500.00
FUND 6130 TOTAL:		9,500.00
FUND: 7605 Escrow Fund		
Warrant #: VW 00339549	Payee Name: LYN WINGERT & ASSOCIATES	
SHRF SL 010411	7605000000 - 2495776 Escrow Fund - Tx SI 09TX0107	250 00
SHRF SL 010411	7605000000 - 2495778 Escrow Fund - TX SL 09TX0551	250 00
	Warrant Total:	500.00
Warrant #: VW 00339579	Payee Name: OMNI BASE SERVICES INC	
OCT-DEC 10 JP3	7605000000 - 2472050 Escrow Fund - Omnibase Ser Liability	997 61
	Warrant Total:	997.61
Warrant #: VW 00339580	Payee Name: OMNI BASE SERVICES INC	
OCT-DEC 10 JP5	7605000000 - 2472050 Escrow Fund - Omnibase Ser Liability	719 74
	Warrant Total:	719.74
Warrant #: VW 00339592	Payee Name: POOR, SHERIFF FREDDIE	
SHRF SL 010411	7605000000 - 2495776 Escrow Fund - Tx SI 09TX0107	627 08
SHRF SL 010411	7605000000 - 2495777 Escrow Fund - TX SL 09TX0204	627 08
SHRF SL 010411	7605000000 - 2495778 Escrow Fund - TX SL 09TX0551	657 80
	Warrant Total:	1,911.96
Warrant #: VW 00339641	Payee Name: TEXAS PARKS AND WILDLIFE DEPT	
JAN 11 JP5 FEES	7605000000 - 2476007 Escrow Fund - Tx Parks & Wildlife Fines 85%	943 50
	Warrant Total:	943.50
Warrant #: VW 00339655	Payee Name: URBANI JR, POMPEO	
SHRF SL 010411	7605000000 - 2495776 Escrow Fund - Tx SI 09TX0107	500 00
	Warrant Total:	500.00
FUND 7605 TOTAL:		5,572.81

Galveston County, Texas

List of County Auditor's Approved Claims For Voucher Warrants Dated 02/09/2011

Summary of All Funds

<u>Fund</u>	<u>Amount</u>
1101 General Fund	512,232 93
2101 Cnty Records Mgt & Preservatio	10,000 00
2211 Law Library	894 63
2212 Mediation Services Prog Fund	487 50
2220 Adult Probation Fund	129 23
2230 Juvenile Justice Fund	1,449 31
2242 Sheriff's Seizure Aft 10/89	336 44
2250 Law Enforcement Education Fund	100 00
2301 Road & Bridge Fund	29,189 63
2370 Flood Control Fund	23,358 53
2410 Mosquito Control District Fund	1,348 79
2841 Juvenile Probation-State Aid	263 67
2842 Community Corrections	192 27
2864 Auto Crimes Task Force Grant	335 08
2893 HMGP - IKE	64,003 08
2914 CDBG Housing Program	137,435 91
2962 Parks/Beaches Project Grants f	503 15
2994 Disaster Recovery - Ike	490,962 74
3120 Limited Tax Cnty Bldg Bds Sr09	372,445 29
3306 Road Capital Project Fund-1987	24,563 60
3307 Unltd Tax Road Bonds Sr 2003B	27,529 86
3308 Unlimited Tax Rd Bds Ser 2001	45 64
3312 Unltd Tax Road Bonds Sr 2009	356,711 94
6123 Group Insurance Fund	7,303 31
6130 Self Insurance Reserve Fund	9,500 00
7605 Escrow Fund	5,572 81
Grand Total:	<u>2,076,895.34</u>

Galveston County, Texas

List of County Auditor's Approved Claims For Voucher Warrants Dated 02/09/2011

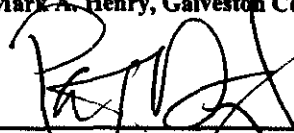
Approved Order to pay by Commissioners Court this day February 9, 2011.



Cliff Billingsley, County Auditor



Mark A. Henry, Galveston County Judge



Patrick Doyle, Galveston County Commissioner, Pct 1

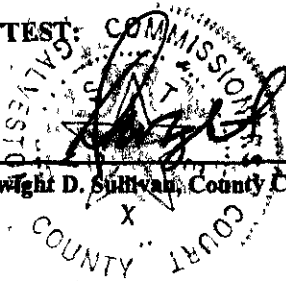


Kevin D. O'Brien, Galveston County Commissioner, Pct 2

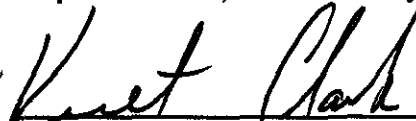


Stephen D. Holmes, Galveston County Commissioner, Pct 3

ATTEST:



Dwight D. Sullivan, County Clerk



Kenneth Clark, Galveston County Commissioner, Pct 4

Check	Payee ID	Payee Name	Date	Check Amount	Type	Subs	Rel To Note
AP00339417	713041	ADAMS & REESE LLP	02/09/11	46 00	MW	OH	
AP00339418	713051	ALBRITTON, AMANDA PARRISH	02/09/11	15 00	MW	OH	
AP00339419	403919	ALLEN, WINNIE	02/09/11	22 66	MW	OH	
AP00339420	708354	AMBIUS	02/09/11	23 29	MW	OH	
AP00339421	013037	AMERICAN FENCE AND SUPPLY CO	02/09/11	458 00	MW	OH	
AP00339422	711832	AMERICAN HOME BUILDERS INC	02/09/11	26,658 34	MW	OH	
AP00339423	702478	AMERSON, RODGER DAN	02/09/11	300 00	MW	OH	B7
AP00339424	710983	ARDENT CONSTRUCTION LLC	02/09/11	42,761 68	MW	OH	
AP00339425	700162	ARLAN'S MARKETS	02/09/11	29 71	MW	OH	
AP00339426	713059	ATTMORE, WILLIAM	02/09/11	5 00	MW	OH	
AP00339427	710718	B L ALEXANDER ENTERPRISES IN	02/09/11	25,433 00	MW	OH	
AP00339428	021329	BACLIFF MUNICIPAL UTILITY DIS	02/09/11	31 41	MW	OH	
AP00339429	713036	BARRETT DAPPIN FRAPPIER TURN	02/09/11	5 00	MW	OH	
AP00339430	VOID CONTINU	VOID - Continued Stub	02/09/11	0 00	VM	OH	VOID
AP00339431	VOID CONTINU	VOID - Continued Stub	02/09/11	0 00	VM	OH	VOID
AP00339432	VOID CONTINU	VOID - Continued Stub	02/09/11	0 00	VM	OH	VOID
AP00339433	VOID CONTINU	VOID - Continued Stub	02/09/11	0 00	VM	OH	VOID
AP00339434	VOID CONTINU	VOID - Continued Stub	02/09/11	0 00	VM	OH	VOID
AP00339435	VOID CONTINU	VOID - Continued Stub	02/09/11	0 00	VM	OH	VOID
AP00339436	VOID CONTINU	VOID - Continued Stub	02/09/11	0 00	VM	OH	VOID
AP00339437	710073	BECK DISASTER RECOVERY INC	02/09/11	258,447 20	MW	OH	
AP00339438	712019	BELL, PAULA	02/09/11	99 65	MW	OH	
AP00339439	401969	BENNETT, JAMES M	02/09/11	877 50	MW	OH	B7
AP00339440	700686	BFI WASTE SERVICES OF TEXAS L	02/09/11	428 02	MW	OH	
AP00339441	711795	BGB INTERESTS LP	02/09/11	37,241 57	MW	OH	
AP00339442	712389	BIG 4 STEEL SERVICES LP	02/09/11	26,159 10	MW	OH	

Check	Payee ID	Payee Name	Date	Check Amount	Type	Subs	Rel To Note
AP00339443	713011	BISTOI, TIFFANY	02/09/11	8 00	MW	OH	
AP00339444	700014	BLOW, ADRIENNE M	02/09/11	101 49	MW	OH	
AP00339445	703001	BOEDEKER CONSTRUCTION INC	02/09/11	44,174 05	MW	OH	
AP00339446	708995	BOLIVAR PENINSULA SPECIAL UTI	02/09/11	2,107 34	MW	OH	
AP00339447	702554	BRET GRIFFIN P C	02/09/11	796 25	MW	OH	B7
AP00339448	702559	BRIGGS, LYNETTE	02/09/11	104 00	MW	OH	B7
AP00339449	024240	BROOKSIDE EQUIP SALES INC	02/09/11	121 15	MW	OH	
AP00339450	713735	BROWN & ASSOCIATES	02/09/11	6 00	MW	OH	
AP00339451	711498	BROWN & GAY ENGINEERS, INC	02/09/11	3,599 50	MW	OH	
AP00339452	709370	BROWN, ADAM BANKS	02/09/11	201 50	MW	OH	B7
AP00339453	712308	BURGHOLI HONES PROMENADE HOMES	02/09/11	73,536 00	MW	OH	
AP00339454	711036	BUZBEE PROPERTIES INC	02/09/11	2,611 33	MW	OH	
AP00339455	712865	CAIN, JOSEPH THOMAS	02/09/11	5 00	MW	OH	
AP00339456	702081	CEASER, KENDRIC	02/09/11	812 50	MW	OH	B7
AP00339457	407782	CENTERPOINT ENERGY	02/09/11	1,028 20	MW	OH	
AP00339458	410355	CHAPMAN, BRANDY	02/09/11	148 00	MW	OH	
AP00339459	703007	CHARNOCK AND COMPANY INC	02/09/11	207,034 58	MW	OH	
AP00339460	705934	CHASTANGS ENTERPRISES	02/09/11	83 09	MW	OH	
AP00339461	712596	CHERRY CRUSHED CONCRETE	02/09/11	7,107 20	MW	OH	
AP00339462	712209	CHICAGO TITLE COMPANY	02/09/11	16 00	MW	OH	
AP00339463	713039	CHICAGO TITLE-COMMERCIAL	02/09/11	16 00	MW	OH	
AP00339464	032326	CHILDRENS CENTER INC, THE	02/09/11	28,364 74	MW	OH	
AP00339465	033209	CITY OF LA MARQUE	02/09/11	379 22	MW	OH	
AP00339466	403085	CITY OF TEXAS CITY	02/09/11	1,337 21	MW	OH	
AP00339467	711541	CIVILTECH ENGINEERING, INC	02/09/11	4,029 46	MW	OH	
AP00339468	033290	CLARK, DIANE	02/09/11	351 00	MW	OH	B7

Check	Payee ID	Payee Name	Date	Check Amount	Type	Subs	Rel To Note
AP00339469	702713	COCHRAN, WINSTON E JR	02/09/11	950 00	MW	OH	B7
AP00339470	034223	COLTZER, ROBERT G	02/09/11	943 15	MW	OH	B7
AP00339471	713070	COMPASS BANK SBA LENDING	02/09/11	10 00	MW	OH	
AP00339472	707222	CPI FOODS INC	02/09/11	1,762 50	MW	OH	
AP00339473	406688	CURRENT USA INC	02/09/11	167 87	MW	OH	
AP00339474	712618	DADANT & SONS INC	02/09/11	12 51	MW	OH	
AP00339475	711809	DAVIS III, NEAL	02/09/11	351 00	MW	OH	B7
AP00339476	712915	DELOSANTOS, JIMMY	02/09/11	193 00	MW	OH	
AP00339477	700546	DIAMOND HYDRAULICS INC	02/09/11	183 12	MW	OH	
AP00339478	706153	DIAZ, MARK A	02/09/11	455 00	MW	OH	B7
AP00339479	710000	DICKEY, WILLIAM SHANE	02/09/11	29 58	MW	OH	
AP00339480	700075	DISCOUNT UNIFORMS INTERNATIONAL	02/09/11	120 94	MW	OH	
AP00339481	713058	DOVER & FOX	02/09/11	16 00	MW	OH	
AP00339482	044255	DURWOOD GREENE CONSTRUCTION C	02/09/11	52,093 46	MW	OH	
AP00339483	705267	ELECTRONIC PARTS OUTLET	02/09/11	175 91	MW	OH	
AP00339484	707025	ENFORCEMENT VIDEO LP	02/09/11	256 00	MW	OH	
AP00339485	702895	ENGRAPHICS	02/09/11	45 00	MW	OH	
AP00339486	405028	ENTERGY	02/09/11	241 08	MW	OH	
AP00339487	713052	EVANS, JULIE PI	02/09/11	28 00	MW	OH	
AP00339488	713067	EVELYN RUTH WERLEIN ESTATE	02/09/11	12 00	MW	OH	
AP00339489	711189	FANNING AND FANNING PLLC	02/09/11	97 50	MW	OH	B7
AP00339490	711896	PEROZ, MERCHANT	02/09/11	781 95	MW	OH	B7
AP00339491	713063	FIDELITY NATIONAL TITLE	02/09/11	8 00	MW	OH	
AP00339492	407685	FILLINGAME INC	02/09/11	169 00	MW	OH	
AP00339493	711019	FINEGAN, SAMUEL K	02/09/11	812 50	MW	OH	B7
AP00339494	713060	FIRST FIDELITY TITLE	02/09/11	20 00	MW	OH	

Check	Payee ID	Payee Name	Date	Check Amount	Type	Subs	Rel To Note
AP00339495	710210	FLEETCOR TECHNOLOGIES DBA CHE	02/09/11	88 74	MW	OH	
AP00339496	713066	FREEDMAN & PRICE PC	02/09/11	5 00	MW	OH	
AP00339497	711064	FRYE AND ASSOCIATES PLLC	02/09/11	950 00	MW	OH	B7
AP00339498	704440	FULK, GEORGE BYRON	02/09/11	308 75	MW	OH	B7
AP00339499	712050	GALVESTON COUNTY HISTORY INC	02/09/11	7,100 00	MW	OH	
AP00339500	071175	GALVESTON COUNTY WCID #1	02/09/11	350 26	MW	OH	
AP00339501	400721	GALVESTON ECONOMIC DEVELOPMEN	02/09/11	35,000 00	MW	OH	
AP00339502	711807	GARRETT LAW FIRM,THE	02/09/11	346 45	MW	OH	B7
AP00339503	701571	GELB, JEFFREY	02/09/11	1,896 25	MW	OH	B7
AP00339504	711122	GLENN, KRISTENA	02/09/11	5 89	MW	OH	
AP00339505	709134	GRAHAM, CARMEN A	02/09/11	552 50	MW	OH	B7
AP00339506	701592	GULF COAST CENTURY	02/09/11	2,915 00	MW	OH	
AP00339507	702363	GUTHEINZ LAW FIRM LLP	02/09/11	401 45	MW	OH	B7
AP00339508	705885	H R M SUPPLY	02/09/11	600 00	MW	OH	
AP00339509	710248	HCA LOCKBOX	02/09/11	4,328 31	MW	OH	
AP00339510	702878	HEAT TRANSFER SOLUTIONS INC	02/09/11	344 50	MW	OH	
AP00339511	713130	HENDERSON, DANNA G	02/09/11	18 00	MW	OH	
AP00339512	711549	HILL ATTORNEY PLLC, GREG	02/09/11	1,527 50	MW	OH	B7
AP00339513	409105	HOME DEPOT	02/09/11	40 42	MW	OH	
AP00339514	401096	HOOVER, JOSEPH A	02/09/11	8,294 40	MW	OH	
AP00339515	712097	HOPKE, KURT S	02/09/11	1,389 85	MW	OH	B7
AP00339516	712343	HOWENSTINE, LISA MARIE	02/09/11	160 00	MW	OH	B7
AP00339517	707488	IBRAHIM & ELLIOTT LLP	02/09/11	715 00	MW	OH	B7
AP00339518	707488	IBRAHIM & ELLIOTT LLP	02/09/11	276 25	MW	OH	B7
AP00339519	701244	IESI TX CORP ENVIRO TEX	02/09/11	98 95	MW	OH	
AP00339520	407630	JACKSON, CALVIN C	02/09/11	520 00	MW	OH	B7

Check	Payee ID	Payee Name	Date	Check Amount	Type	Subs	Rel To Note
AP00339521	708810	JAROTH INC	02/09/11	156 00	MW	OH	
AP00339522	402937	JMB TIRE AND APPLIANCE CO	02/09/11	560 04	MW	OH	
AP00339523	701979	JONES LAW FIRM	02/09/11	344 50	MW	OH	B7
AP00339524	701243	JONES, STACEY LEE	02/09/11	4,054 75	MW	OH	B7
AP00339525	400520	JOSEPH, JUNE	02/09/11	171 36	MW	OH	
AP00339526	410476	JP MORGAN CHASE	02/09/11	2,177 50	MW	OH	
AP00339527	704638	KAUFMANN, CHARLES R	02/09/11	1,040 00	MW	OH	B7
AP00339528	711325	KIWI TIRE SHOP	02/09/11	175 00	MW	OH	
AP00339529	402386	KLEEN JANITORIAL SUPPLY COMPA	02/09/11	503 15	MW	OH	
AP00339530	113100	KLOTZ ASSOC INC	02/09/11	8,676 66	MW	OH	
AP00339531	713121	KONARIK, VICTOR & PATRICE	02/09/11	25,206 10	MW	OH	
AP00339532	712312	LAIRD-VALDEZ LLP	02/09/11	260 00	MW	OH	B7
AP00339533	712266	LAW OFFICE OF KYLE VERRET PLL	02/09/11	554 45	MW	OH	B7
AP00339534	710869	LAW OFFICE OF LINDSAY R LOPEZ	02/09/11	877 50	MW	OH	B7
AP00339535	711543	LAW OFFICE OF MICHAEL RUSSO P	02/09/11	715 00	MW	OH	B7
AP00339536	711805	LAW OFFICE OF ROBERT DAVID MI	02/09/11	260 00	MW	OH	B7
AP00339537	706067	LCR-M LIMITED PARTNERSHIP	02/09/11	35 99	MW	OH	
AP00339538	705777	LEATHERS, HILL	02/09/11	3,127 50	MW	OH	B7
AP00339539	406408	LEE JR, JOHN	02/09/11	11 84	MW	OH	
AP00339540	705682	LEOPOLD, WILLIAM E	02/09/11	2,975 00	MW	OH	RE
AP00339541	123026	LIGGIOS TIRE AND SERVICE CENT	02/09/11	661 14	MW	OH	
AP00339542	707090	LINEBARGER GOGGAN BLAIR & SAM	02/09/11	461 95	MW	OH	
AP00339543	707090	LINEBARGER GOGGAN BLAIR & SAM	02/09/11	4,979 06	MW	OH	
AP00339544	707090	LINEBARGER GOGGAN BLAIR & SAM	02/09/11	2,926 80	MW	OH	
AP00339545	705152	LOVE, PAUL	02/09/11	747 50	MW	OH	B7
AP00339546	711180	LOWERY MASONRY LLC	02/09/11	73,864 40	MW	OH	

Check	Payee ID	Payee Name	Date	Check Amount	Type	Subs	Rel To Note
AP00339547	125518	LUCAS CONSTRUCTION CO INC	02/09/11	24,773 83	MW	OH	
AP00339548	125518	LUCAS CONSTRUCTION CO INC	02/09/11	2,755 00	MW	OH	
AP00339549	709842	LYN WINGERT & ASSOCIATES	02/09/11	500 00	MW	OH	
AP00339550	709123	M FOX CURL AND ASSOCIATES PC	02/09/11	409 50	MW	OH	B7
AP00339551	710502	MAGNETIC PRODUCTS AND SERVICE	02/09/11	1,457 05	MW	OH	
AP00339552	713102	MAGNUSON HARDWARE LP	02/09/11	4,407 04	MW	OH	
AP00339553	713012	MAINLAND BANK	02/09/11	20 00	MW	OH	
AP00339554	136531	MALLIA, WAYNE J	02/09/11	55 00	MW	OH	
AP00339555	407300	MARION, WILLIAM DAVID	02/09/11	409 50	MW	OH	B7
AP00339556	710378	MARTIN RESOURCE MANAGEMENT CO	02/09/11	7,022 00	MW	OH	
AP00339557	705424	MASTER WORD SERVICE INC	02/09/11	245 98	MW	OH	
AP00339558	407317	MATHESON TRI-GAS INC	02/09/11	406 73	MW	OH	
AP00339559	401374	MATTHEW BENDER & COMPANY INC	02/09/11	144 08	MW	OH	
AP00339560	400252	MAXWELL, BONITA G	02/09/11	157 08	MW	OH	
AP00339561	707722	MCGILL LAW FIRM, THE	02/09/11	292 50	MW	OH	B7
AP00339562	136689	MCLEOD ALEXANDER POWEL & APFF	02/09/11	19 50	MW	OH	B7
AP00339563	131029	MCKEE FORD INC	02/09/11	289 02	MW	OH	
AP00339564	704761	MESA MECHANICAL INC	02/09/11	24,320 00	MW	OH	
AP00339565	712341	METRO CITY CONSTRUCTION LP	02/09/11	308,547 56	MW	OH	
AP00339566	713008	MIDDLETON BROWN LLC	02/09/11	7,098 00	MW	OH	
AP00339567	032250	MITCHELL CHUOKE PLUMBING CO	02/09/11	71,250 00	MW	OH	
AP00339568	134270	MORA JR, J T	02/09/11	315 00	MW	OH	
AP00339569	706214	MORGAN, LE'NARD D	02/09/11	92 31	MW	OH	
AP00339570	710357	MORRIS, PHILLIP W	02/09/11	780 00	MW	OH	B7
AP00339571	405987	MUELLER, DINAH J	02/09/11	968 50	MW	OH	B7
AP00339572	710385	MUNRO'S UNIFORM SERVICES LTD	02/09/11	90 80	MW	OH	

Check	Payee ID	Payee Name	Date	Check Amount	Type	Subs	Rel To Note
AP00339573	406192	MUSTANG RENTAL SERVICES INC	02/09/11	3,472.31	MW	OH	
AP00339574	713053	NEBOUT, JAMES D	02/09/11	16.00	MW	OH	
AP00339575	713099	NGUYEN, JASON	02/09/11	292.98	MW	OH	
AP00339576	708712	NOVELLI JR, ROSS	02/09/11	10,000.00	MW	OH	RE
AP00339577	711213	NRG ENERGY INC	02/09/11	204,711.05	MW	OH	
AP00339578	152033	OFFICE DEPOT INC	02/09/11	199.26	MW	OH	
AP00339579	703084	OMNI BASE SERVICES INC	02/09/11	997.61	MW	OH	
AP00339580	703084	OMNI BASE SERVICES INC	02/09/11	719.74	MW	OH	
AP00339581	705252	ONEOK INC	02/09/11	32,887.00	MW	OH	
AP00339582	710160	ORTIZ-TAING LAW FIRM PC	02/09/11	468.00	MW	OH	B7
AP00339583	710160	ORTIZ-TAING LAW FIRM PC	02/09/11	273.00	MW	OH	B7
AP00339584	706804	OTHON INC	02/09/11	1,410.23	MW	OH	
AP00339585	400105	OWEN ELECTRIC SUPPLY	02/09/11	254.34	MW	OH	
AP00339586	409712	PARISH, ERVIN R	02/09/11	90.78	MW	OH	
AP00339587	702817	PATE ENGINEERS INC	02/09/11	5,674.70	MW	OH	
AP00339588	705676	PAUL ENGINEERING INC	02/09/11	11,900.00	MW	OH	
AP00339589	709286	PESTMASTER SERVICES INC	02/09/11	3,305.08	MW	OH	
AP00339590	713030	PINKERTON LAW FIRM	02/09/11	44.00	MW	OH	
AP00339591	712782	PIPE MASTER PLUMBING LLC	02/09/11	327.70	MW	OH	
AP00339592	406092	POOR, SHERIFF FREDDIE	02/09/11	1,911.96	MW	OH	
AP00339593	432271	PUBLIC SERVICE APPAREL	02/09/11	239.91	MW	OH	
AP00339594	705753	QUINTANILLA, DONNIE	02/09/11	97.50	MW	OH	B7
AP00339595	712364	RAMIREZ, VICTORIA	02/09/11	108.12	MW	OH	
AP00339596	709531	RED DOOR HOUSING LLC	02/09/11	100.00	MW	OH	RE
AP00339597	713049	REDMOND, ALBERT G	02/09/11	12.00	MW	OH	
AP00339598	711672	REGENT & ASSOCIATES	02/09/11	5.00	MW	OH	

Check	Payee ID	Payee Name	Date	Check Amount	Type	Subs	Rel To Note
AP00339599	713042	RIDER, G WILLIAM	02/09/11	10 00	MW	OH	
AP00339600	712313	ROPER LAW FIRM, THE	02/09/11	260 00	MW	OH	B7
AP00339601	711909	SADLER, ANDREA	02/09/11	763 75	MW	OH	B7
AP00339602	401775	SAFETY KLEEN CORP	02/09/11	225 50	MW	OH	
AP00339603	711244	SALINSKY LAW OFFICES	02/09/11	187 50	MW	OH	B7
AP00339604	405145	SAM'S CLUB DIRECT	02/09/11	336 44	MW	OH	
AP00339605	191106	SAN LEON MUNICIPAL UTILITY DI	02/09/11	52 26	MW	OH	
AP00339606	400133	SANDERS, EARNESTINE LYNCH	02/09/11	169 32	MW	OH	
AP00339607	191023	SANTA FE AUTO PARTS INC	02/09/11	80 84	MW	OH	
AP00339608	700001	SANTA FE SENIOR CITIZENS COUN	02/09/11	500 00	MW	OH	
AP00339609	713033	SAUNDERS, CRAIG W	02/09/11	203 00	MW	OH	
AP00339610	196105	SCHINDLER ELEVATOR CORP	02/09/11	7,923 06	MW	OH	
AP00339611	702664	SCHWAB, TAYLOR	02/09/11	422 50	MW	OH	B7
AP00339612	711834	SEARS & BENNETT LLP	02/09/11	3,497 50	MW	OH	B7
AP00339613	712743	SECURITY CONNECTIONS INC	02/09/11	20 00	MW	OH	
AP00339614	703697	SENDEJAS, DANNY	02/09/11	444 00	MW	OH	
AP00339615	712170	SERVICE LINK	02/09/11	20 00	MW	OH	
AP00339616	713104	SHARP, RICK	02/09/11	285 00	MW	OH	
AP00339617	134221	SHEARN MOODY PLAZA CORP	02/09/11	54,304 45	MW	OH	
AP00339618	400542	SHERWIN WILLIAMS PAINT CORP	02/09/11	55 07	MW	OH	
AP00339619	713061	SMALL BUS LENDING	02/09/11	5 00	MW	OH	
AP00339620	430754	SMITH, JAMES DENNIS	02/09/11	1,690 00	MW	OH	B7
AP00339621	704289	SOLUTIONS4SURE COM INC	02/09/11	177 55	MW	OH	
AP00339622	713043	STAGG, R NICOLE	02/09/11	39 00	MW	OH	
AP00339623	194159	STANDARD STEEL SUPPLY INC	02/09/11	197 82	MW	OH	
AP00339624	713055	STARTEX TITLE CO	02/09/11	144 00	MW	OH	

Check	Payee ID	Payee Name	Date	Check Amount	Type	Subs	Rel To Note
AP00339625	194167	STATE BAR OF TEXAS	02/09/11	406 25	MW	OH	
AP00339626	712009	STEFFEY, MICHAEL	02/09/11	12,800 00	MW	OH	
AP00339627	409104	STEVE'S WAREHOUSE TIRES	02/09/11	45 00	MW	OH	
AP00339628	710406	STRAUSS, LISA SHAPIRO	02/09/11	1,950 00	MW	OH	B7
AP00339629	713113	STRONACH, DONALD A	02/09/11	38,796 98	MW	OH	
AP00339630	704108	SULLIVAN, DWIGHT D	02/09/11	5,000 00	MW	OH	
AP00339631	702386	SULLIVAN, KIMBERLY A	02/09/11	5 00	MW	OH	EX
AP00339632	712040	SUMMERLIN PLLC, ROBERT E	02/09/11	1,088 75	MW	OH	B7
AP00339633	405722	SUN COAST RESOURCES INC	02/09/11	9,822 82	MW	OH	
AP00339634	707408	SUNGARD PUBLIC SECTOR INC	02/09/11	8,630 18	MW	OH	
AP00339635	712238	SWCA INC	02/09/11	45 64	MW	OH	
AP00339636	713031	TARA ENERGY LLC	02/09/11	314 04	MW	OH	
AP00339637	403523	TEXAS ART SUPPLY	02/09/11	47 96	MW	OH	
AP00339638	708583	TEXAS LAW & PSYCHIATRY PLLC	02/09/11	3,600 00	MW	OH	
AP00339639	405297	TEXAS LAWYERS INSURANCE EXCHA	02/09/11	4,500 00	MW	OH	
AP00339640	713047	TEXAS MUTUAL INSURANCE COMPAN	02/09/11	8 00	MW	OH	
AP00339641	202267	TEXAS PARKS AND WILDLIFE DEPT	02/09/11	943 50	MW	OH	
AP00339642	406578	TEXAS STATE UNIVERSITY SAN MA	02/09/11	100 00	MW	OH	
AP00339643	406147	THOMA, JOHN	02/09/11	3,774 22	MW	OH	B7
AP00339644	713072	TIBALDOS FEED AND SUPPLY	02/09/11	162 70	MW	OH	
AP00339645	705373	TOM-MAC INC	02/09/11	18,076 12	MW	OH	
AP00339646	713065	TORNEY & ASSOCIATES/SASE	02/09/11	9 00	MW	OH	
AP00339647	713014	TORRES, GILBERT	02/09/11	8 00	MW	OH	
AP00339648	700583	TORRES, ROBERTO	02/09/11	373 75	MW	OH	B7
AP00339649	705465	TREADWELL ELECTRIC CONTRACTOR	02/09/11	47,500 00	MW	OH	
AP00339650	711566	TREVINO, ISMAEL	02/09/11	211 25	MW	OH	B7

Check	Payee ID	Payee Name	Date	Check Amount	Type	Subs	Rel To Note
AP00339651	710161	TUBING AND METRICS HYDRAULICS	02/09/11	589 19	MW	OH	
AP00339652	705306	UNBEHAGEN, O C	02/09/11	6,666 66	MW	OH	B7
AP00339653	701538	UNITED PARCEL SERVICE	02/09/11	38 52	MW	OH	
AP00339654	711283	UNIVERSITY FEDERAL CREDIT UNI	02/09/11	24 00	MW	OH	
AP00339655	406818	URBANI JR, POMPEO	02/09/11	500 00	MW	OH	B7
AP00339656	402812	UTMB	02/09/11	607 06	MW	OH	
AP00339657	402812	UTMB	02/09/11	800 00	MW	OH	
AP00339658	713122	VEASLEY III, SPARKS P	02/09/11	300 00	MW	OH	B7
AP00339659	709512	VENSO, NORMA	02/09/11	250 00	MW	OH	B7
AP00339660	406603	VERIZON	02/09/11	335 08	MW	OH	
AP00339661	708752	VOICE4NET COM	02/09/11	50 00	MW	OH	
AP00339662	713046	WEBER, MEHAFY	02/09/11	24 00	MW	OH	
AP00339663	701863	WEBER, WINIFRED B	02/09/11	260 00	MW	OH	B7
AP00339664	713044	WELLS FARGO HOME MORTGAGE	02/09/11	30 00	MW	OH	
AP00339665	700273	WELSH, MATTHEW SEAN	02/09/11	483 50	MW	OH	
AP00339666	701533	WEST PUBLISHING CORPORATION	02/09/11	477 47	MW	OH	
AP00339667	713073	WESTMINSTER TITLE AGENCY	02/09/11	8 00	MW	OH	
AP00339668	711800	ZIENTEK, JOSHUA	02/09/11	578 50	MW	OH	B7

```

**Galv Cnty Production**      02/08/11      O H C H E C K R E G I S T E R      CHECK REGISTER      Page 11
TUE, FEB 08, 2011 11 28 AM ---req DELEON_A---leg GL JL---loc AUDITOR --Job 3378988 #S054--pgm BK200 <1 19> rpt id CXREG---
Check Payee ID Payee Name Date Check Amount Type Subs Rel To Note
=====
SUB TOTALS
Total Void Machine Written 0 00 Number of Checks Processed 7
Total Void Hand Written 0 00 Number of Checks Processed 0
Total Machine Written 2039 411 62 Number of Checks Processed 245
Total Hand Written 0 00 Number of Checks Processed 0
Total Reversals 0 00 Number of Checks Processed 0
Total Cancelled 0 00 Number of Checks Processed 0
SUB TOTAL 2039,411 62

```

Galv Cnty Production 02/08/11 O H C H E C K R E G I S T E R CHECK REGISTER Page 12
TUE, FEB 08, 2011, 11 28 AM ---req DELEON_A---leg GL JL---loc AUDITOR---Job 3378988 #S054---pgm BK200 <1 19> rpt id CKREG---

Check	Payee ID	Payee Name	Date	Check Amount	Type	Subs	Rel	To Note
FT00000118	404603	BAKER, STEPHEN W	02/09/11	7,396 00	CX	OH	B7	
FT00000119	161059	BOB PAGAN FORD INC	02/09/11	1,499 64	CX	OH		
FT00000120	071118	GALVESTON NEWSPAPERS INC	02/09/11	25,254 91	CX	OH		
FT00000121	705097	LONE STAR UNIFORMS INC	02/09/11	135 00	CX	OH		
FT00000122	709070	SCHWAB-RADCLIFFE, SUZANNE	02/09/11	3,198 17	CX	OH	B7	

S U B T O T A L S

Total Void Machine Written	0 00	Number of Checks Processed	0
Total Void Hand Written	0 00	Number of Checks Processed	0
Total Machine Written	0 00	Number of Checks Processed	0
Total Hand Written	0 00	Number of Checks Processed	0
Total Reversals	0 00	Number of Checks Processed	0
Total Cancelled	37,483 72	Number of Checks Processed	5

S U B T O T A L

37,483 72

```

**Galv Cnty Production**
TUE, FEB 08, 2011, 11 28 AM ---req DELEON_A---leg O H C H E C K R E G I S T E R CHECK REGISTER Page 13
02/08/11
GL JL---loc AUDITOR---job 3378988 #S054---pgm BK200 <1 19> rpt id CKREG---
Check Payee ID Payee Name Date Check Amount Type Subs Rel To Note
=====
G R A N D T O T A L S
Total Void Machine Written 0 00 Number of Checks Processed 7
Total Void Hand Written 0 00 Number of Checks Processed 0
Total Machine Written 2039,411 62 Number of Checks Processed 245
Total Hand Written 0 00 Number of Checks Processed 0
Total Reversals 0 00 Number of Checks Processed 0
Total Cancelled 37,483 72 Number of Checks Processed 5
G R A N D T O T A L 2076,895 34

```

AGENDA

ITEM

#1b

ORDER

On this the 9th day of February 2011, the Commissioners Court of Galveston County, Texas convened in a regularly scheduled meeting with the following members thereof present

Mark A Henry, County Judge
Patrick Doyle, Commissioner, Precinct No. 1
Kevin D. O'Brien, Commissioner, Precinct No. 2
Stephen Holmes, Commissioner, Precinct No. 3
Ken Clark, Commissioner, Precinct No. 4 and
Dwight D Sullivan, County Clerk

when the following proceedings, among others, were had to-wit

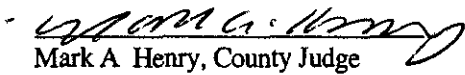
Upon recommendation being received by the County Auditor, IT IS ORDERED that the County Clerk enter this ORDER in the minutes of the Commissioner's Court approving the biweekly payrolls of GALVESTON COUNTY, GALVESTON COUNTY HEALTH DISTRICT, AND GALVESTON COUNTY ROAD DISTRICT NO. 1 as are shown on the payroll lists attached hereto and made a part hereof for all intents and purposes for the period ending Feb 2nd, 2011 and being salary warrant numbers PY0332260 through PY0332277. EFT90289738 through EFT90291042. The gross amount of such warrants are estimated \$ 2,777,225.83 for Biweekly Payroll #003, 2011.

UPON MOTION OF COUNTY COMMISSIONER JUDGE HENRY AND SECONDED

BY COMMISSIONER O'BRIEN THE ABOVE ORDER WAS PASSED THIS 9TH DAY

OF FEB., 2011 with 5 votes cast in favor thereof and 0 votes cast against

COUNTY OF GALVESTON, TEXAS


Mark A Henry, County Judge

ATTEST


Dwight D. Sullivan
County Clerk

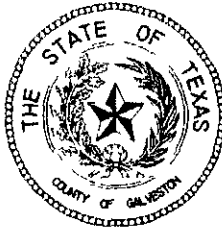
RECOMMENDED


Cliff Billingsley, CPA
County Auditor

AGENDA

ITEM

#1c



THE COUNTY OF GALVESTON
COUNTY AUDITOR'S OFFICE
P O Box 1418
GALVESTON, TEXAS 77553

Cliff Billingsley, CPA
County Auditor

Ron Chapa, CPA
First Assistant, Director of Auditing

Jeff Modzelewski, CPA
First Assistant, Director of Accounting

Freeman Mendell
First Assistant, I.T. Systems

February 9, 2011

Honorable Judge James Yarbrough and
Members of the Commissioners' Court

Honorable Judge and Members of the Court

Attached for your consideration is the surprise cash count report for Constable, Precinct 4 that was performed on September 8, 2010. Also attached is Honorable James Fullen's response memo dated September 27, 2010.

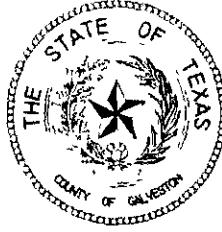
Sincerely,

A handwritten signature in cursive script that reads "Cliff Billingsley".

Cliff Billingsley, CPA
County Auditor

cc: Honorable James Fullen
Constable, Precinct 4

Attachments: Honorable James Fullen, Constable, Precinct 4



THE COUNTY OF GALVESTON

COUNTY AUDITOR'S OFFICE

P O Box 1418

GALVESTON, TEXAS 77553

Cliff Billingsley, CPA
County Auditor

Ron Chapa, CPA
First Assistant, Director of Auditing

Jeff Modzelewski, CPA
First Assistant, Director of Accounting

Freeman Mendell
First Assistant, I T. System

Date: September 8, 2010

To: Cliff Billingsley, CPA
County Auditor

From: Mike Guffey
Internal Auditor II

Re: Constable Precinct 4 Cash Count

A surprise cash count of Constable Precinct 4 was conducted on September 8, 2010. The objectives of the cash count were to determine if all the collections had been accounted for at the time of the surprise cash count, and if the collections were properly handled and in a timely manner.

- All collections were accounted for at the time of the surprise cash count.
- There was a \$40.00 out of county check in the cash drawer that could not be processed from a law firm.
- There was \$160.00 cash in the cash drawer, which was accounted for at the time of the surprise cash count. It represented gratuities given to the Constable's office for 2 separate funerals where the Constables provided police services to the deceased's family. The Constables stressed that they did not accept gratuities from the public for doing their job, but were forced to accept the money from the determined gift givers.

Recommendation CON4-10-01: Constable 4 should return the out of county check to the law firm with the check clearly stamped "void."

Recommendation CON4-10-02: In accordance with Local Government Code (LGC) §81.032, the Constable should submit a letter to Commissioners' Court, specifying the amount of the donation and requesting where he would like the funds to go and the purpose. At that time, a budget amendment may be prepared for the accepted donation and allocated to the line item approved by Commissioners' Court.

Constable Precinct 4 – Cash Count
September 8, 2010
Page 2

We wish to thank Constable Fullen and his staff for their cooperation and assistance

cc Ron Chapa, CPA
Michael Allison



JIMMY FULLEN
CONSTABLE PRECINCT 4
Galveston County
11730 Highway 6
P O Box 697
Santa Fe, Texas, 77510
Phone: (409)770-5477
Fax: (409)770-5996



MEMORANDUM

TO: Michael Allison
From: Constable Jimmy Fullen
Date: January 26, 2011
RE: Cash Count

The precinct 4 Constable's Office has partially complied with the recommendations outlined in your letter dated September 8, 2010. Furthermore, we have taken corrective actions to assure that only funds paid directly to this office for services rendered are placed in a bank bag that has been designated by me for county funds. This bag will be available for inspections by the County Auditor's Office at all times.

Additionally, I will be making a formal request to the County Commissioners to have the \$160.00 in cash that was inside the bank bag during the cash count inspection be received by the county and deposited into this offices travel account. If you have any questions, please feel free to contact me

AGENDA

ITEM

#2



RECEIVED
JAN 26 2011

January 20, 2011

GALVESTON COUNTY JUDGE

The Honorable Mark Henry
County Judge, Galveston County
Galveston County Courthouse
722 Moody – Suite 200
Galveston, TX 77553

To The Honorable Mark Henry

Enclosed please find the notice of meeting and agenda for the Gulf Coast Center Board of Trustees meeting for the month of January. I have also enclosed a copy of the approved minutes from the December 8, 2010 meeting.

Should you have any questions or concerns please feel free to contact me at (409) 763-2373 or via email at rondaw@gcmhmr.com.

Thank you,

Ronda Wilson
Secretary to the Board of Trustees

Enclosures

123 ROSENBERG, SUITE 6
GALVESTON, TEXAS 77550

409 763.2373
FAX 409 763-5538

WWW.GCMHMR.COM



NOTICE OF MEETING

January 20, 2011

MEMBERS OF THE BOARD OF TRUSTEES

The Gulf Coast Center Board of Trustees meeting for the month of January will be held on Wednesday, **January 26, 2011** at **6:30 p.m.** The meeting will be held at the **Southern Brazoria Community Service Center**, located at **101 Tigner - Angleton, Texas**. A Budget Workshop will be held prior to the regular monthly meeting from 5:00 p.m. – 6:00 p.m.

Thank you,

Ronda Wilson
Secretary to the Board of Trustees

123 ROSENBERG, SUITE 6
GALVESTON, TEXAS 77550

409.763.2373
FAX 409.763-5538

WWW.GCMHMR.COM

THE GULF COAST CENTER

Regular Board of Trustees Meeting

The Board of Trustees of the Gulf Coast Center will have its regular monthly meeting at 6:30 p.m. on Wednesday, January 26, 2011 at the Southern Brazoria Community Service Center located at 101 Tigner, Angleton, Texas. (979) 848-0933 A Budget Workshop will be held prior to the regular monthly meeting from 5:00 p.m. – 6:00 p.m. If you need additional assistance to effectively participate in or observe either meeting please contact the Executive Director's office at (409) 763-2373 at least 24 hours prior to the meeting so that reasonable accommodations can be made to assist you

1. **BUDGET WORKSHOP:** 5:00 P.M. – 6:00 P.M.
2. **CALL TO ORDER:** Regular Monthly Meeting 6:30 p.m. - Jamie Travis, Board Chair
3. **CITIZENS' COMMENTS:**
4. **BOARD MEMBERS' REPORTS:**
5. **PROGRAM PRESENTATION:** Diane Terrell-Davis, Kinard & Co, PC
FY2010 Financial and Compliance Audit
6. **ACTION ITEMS:**
 - a. Review and approval of previous meeting minutes December 8, 2010 (Pg. 1-4)
 - b. Consider the approval of the December 2010 check register
 - c. Consider the acceptance of the FY2010 Financial and Compliance Audit, and the Center's response to any Audit Management Letter Comments and Findings (Pg. 5-6)
 - d. Consider the approval of the policy revisions to Section 7 Medication and other Treatments of the Gulf Coast Center Policy Manual
 - e. Consider the approval of the Center's FY2010 Operational Budget Amendments (Pg. 7-8)
 - f. Consider the approval of the addendum to the Center's 2011 Partner Agency Agreement with United Way Galveston County Mainland (Pg. 9-10)

RECOVERY SERVICES ACTION ITEMS:

- g. Consider the ratification of the new Memorandum of Agreement with the Salvation Army for the purpose of coordinating services to individuals who are homeless and/or transitioning from homelessness.

Term. October 1, 2010 – September 30, 2011

Service Area Substance Abuse/Recovery Services County of Service Galveston

Amount not to exceed \$0.00

Description of Service The Salvation Army will provide 12 slots/beds for clients in GCC's Transitional Housing II Program.

- h. Consider the ratification of the new Memorandum of Agreement with the Samaritan Women at the Well for purpose of providing 5 slots/beds for clients in the Transitional Housing II program of the Gulf Coast Center.

Term February 2, 2011 – September 30, 2011

Service Area Substance Abuse/Recovery Services County of Service Galveston

Amount not to exceed \$10,250.00 for the term of the Agreement

Description of Service Samaritan Women will provide 5 slots/beds for clients in GCC's Transitional Housing II program

CONNECT TRANSIT ACTION ITEMS:

1. Consider the recommendation and approval of the selected General Contractor for the construction of the League City Park and Ride (Victory Lakes)
- j. Consider the approval of a Board Resolution in support of state legislation which would “hold harmless” small urban and rural areas in the state of Texas which may be impacted by the change in Urbanized Area Boundaries resulting from the 2010 Census (**Pg. 11-13**)
- k. Consider the approval of a Board Resolution supporting the naming of the Galveston County Transit District as an additional FTA grantee for the specific purpose of pursuing federal and state funding to support the development of regional transit with Galveston County
- l. Consider the approval of The Goodman Cooperation contract for 2011/2012 transit planning activities (**Pg. 14-18**)

Task A Finance and Implementation Strategy	\$ 75,000
Task B Intergovernmental Support	\$ 50,000
Task C Technical Support Services	\$ 40,000
Task D Pursuit of Non-Traditional Local Share	<u>\$ 25,000</u>
Total Budget	\$190,000

MH ADULT SERVICES ACTION ITEMS:

- m. Consider the ratification of the renewal Inpatient Services Agreement with SJ Medical Center, LLC dba St Joseph Medical Center for utilization of up to a designated 20 bed inpatient unit located within its Houston hospital campus

Term November 18, 2010 – August 31, 2011

Service Area Mental Health Services County of Service Harris

Amount not to exceed \$1,839,600 00

Description of Service This is the renewal of the inpatient unit which replaced the 20 beds lost at UTMB due to Hurricane Ike

7. PENDING ACTION ITEMS:

Pending Action Items are those items which were on a prior board agenda but not completely resolved The items may be listed for update or final action by the Board

- a. Acceptance of contract addendums with those MH Collaborative partner agencies with funds remaining in their original Hurricane Ike HGAC-SSBG partner contracts for the no-cost extension utilization period of October 1st, 2010 through September 30th, 2011 for those remaining Hurricane Ike HGAC-SSBG grant funds listed below

MH Collaborative Partner	Addendum Total
ACCT	\$123,738
ADA women's Center	\$408,393
Arc of the Gulf Coast	\$144,871
BACODA	\$25,762
Catholic Charities	\$14,667
Family Service Center	\$161,568
Independence Village	\$14,205
The Jesse Tree	\$21,262
Samaritan Women at the Well	\$38,605
Teem Health/UTMB of Galveston	\$178,790

- b. Acceptance of the contract addendum with HGAC for the no-cost extension utilization period of October 1st, 2010 – September 30th, 2011 for remaining Hurricane Ike SSBG grant funds as negotiated by the Center Total remaining funds for use during the no-cost extension period \$1,605,673 (Pg. 19)

8. EXECUTIVE DIRECTOR'S CALENDAR: Mike Winburn

- Review of the Financial Report (Pg 20-22)
- Grant Activity Update
- Presentation and Review of State Comparative Reports.
- Review and Discussion of ETBHN Activities and Updates
- Review Texas Council Community MHMR Center Activities and Updates
- FY10 1st Quarter Board of Trustees Review Reports (Pg. 23-24)
- FY10 1st Quarter Investment Report (Pg. 25)
- Gulf Coast Homeless Coalition Meeting Minutes Year-to-date
- Presentation of Calendar of Upcoming Events.
 - NAMI GC Walk – March 5, 2011 Alvin Community College
 - Texas Council Annual Conference – June 15-17, 2011 Westin Galleria – Houston, Texas

9. ADJOURN

**THE GULF COAST CENTER
BOARD OF TRUSTEES' MEETING
Wednesday, October 27, 2010
Southern Brazoria Community Service Center
101 Tigner
Angleton, TX
(979) 848-0933**

MINUTES

1. **CALL TO ORDER** – Gerald Mitchell, Co-Chair of the Board of Trustees, convened the meeting on Wednesday, October 27, 2010 at 6:30 p.m. at the Southern Brazoria Community Service Center located at 101 Tigner, Angleton, Texas.

The following Board members were present: Gerald Mitchell – Co-Chair, David Walker, Caroline Rickaway, Robert Flick, David Harrington, Trey Picard and Jim Floyd

Board Member(s) Absent: Jamie Travis (excused), Mary Lou Flynn-Dupart (excused)

Also present were: G Michael Winburn - Executive Director; Lindsay Glover-Associate, Mills Shirley – Board Attorney, and other Center staff

2. **CITIZENS' COMMENTS** There were no citizen's comments
3. **BOARD MEMBERS' REPORTS:** Robert Flick extended an invitation to the annual Thanksgiving Luncheon at St. Michael's Episcopal Church in LaMarque on November 11, 2010 at 11 00 am
4. **PROGRAM PRESENTATION:** There was no program presentation
5. **ACTION ITEMS**
 - a) **Review and approval of previous meeting minutes: September 22, 2010.**
On motion by Robert Flick, seconded by Jim Floyd, the board voted to approve the meeting minutes
The motion carried with all members voting in favor
 - b) **Review and approval of the minutes for the September 9, 2010 Board Retreat.**
On motion by David Harrington, seconded by Trey Picard, the board voted to approve the meeting minutes
The motion carried with all members voting in favor
 - c) **Consider the approval of the September 2010 Check register.** On motion by Caroline Rickaway, seconded by David Harrington, the board voted to approve the September 2010 check register
The motion carried with all members voting in favor
 - d) **Consider the approval of the 2nd Amendment to the Executive Director's employment contract and revised job description.** On motion by Trey Picard, seconded by Robert Flick, the board voted to approve the 2nd Amendment to the Executive Director's employment contract and revised job description
Following discussion the motion carried with all members voting in favor
 - e) **Consider the approval to declare surplus and dispose of Vehicles #1402, a 1996 Ford F-150 truck with 139,142 miles, and Vehicle #0264, a 1995 Ford F-450 HD Flatbed truck, with repair costs no longer cost-effective for continued use.** On motion by Robert Flick, seconded by Trey Picard, the board voted to approve the declaration of surplus and disposal of Vehicles #1402, a 1996 Ford F-150 truck and Vehicle #0264, a 1995 Ford F-450 HD Flatbed truck
The motion carried with all members voting in favor
 - f) **Consider the approval of Bank Account listing and signatures.** On motion by Jim Floyd, seconded by David Walker, the board voted to approve the bank account listing and designated signatures as was provided
The motion carried with all members voting in favor

- g) **Consider the approval of FY2011 operating budget.** On motion by Robert Flick, seconded by Trey Picard, the board voted to approve the initial FY2011 operating budget in the amount of \$27,248,929. The motion carried with all members voting in favor.
- h) **Consider the approval of the initial 2011 contract and funding with DADS.** On motion by Robert Flick, seconded by Trey Picard, the board voted to approve the initial 2011 contract and funding with DADS. The motion carried with all members voting in favor.
- i) **Consider the approval of the initial FY2011 contract and funding with DSHS Mental Health and Community Hospital Services.** On motion by Robert Flick, seconded by Trey Picard, the board voted to approve the initial FY2011 contract and funding with DSHS Mental Health and Community Hospital Services. The motion carried with all members voting in favor.
- j) **Consider the approval of the current Historically Underutilized Business (HUB) Plan.** On motion by Robert Flick, seconded by Trey Picard, the board voted to approve the current Historically Underutilized Business (HUB) Plan. Following discussion the motion carried with all members voting in favor.

CONNECT TRANSIT ACTION ITEMS

- k) **Consider the ratification of the amendment to the Interlocal Agreement between the Gulf Coast Center and Brazosport College which supports pedestrian-transit access infrastructure improvements within the College campus.** On motion by Trey Picard, seconded by Caroline Rickaway, the board voted to approve the ratification of the amendment to the Interlocal Agreement between the Gulf Coast Center and Brazosport College. The motion carried with all members voting in favor.

Term: September 1, 2010 – August 31, 2011

Service Area: Connect Transit County of Service: Brazoria

Description: The amendment indicates that the College desires to provide financial support to the Center's southern Brazoria County Transit Services in the amount of 33% (~\$590,000) of the federal reimbursements received by the College from the Center for qualified infrastructure improvements. The Center will utilize federal funding, through the ARRA "economic stimulus" program, and other federal and state funded programs, to support pedestrian-transit access infrastructure improvements within the College.

- l) **Consider the approval of the renewal Agreement with Mall of the Mainland (Coastline Retail Center, Inc.) to secure safe and adequate parking to be located within the Mall regional shopping center.** On motion by Robert Flick, seconded by David Harrington, the board voted to approve the renewal agreement with Mall of the Mainland (Coastline Retail Center, Inc.). The motion carried with all members voting in favor.

Term: October 1, 2010 – September 30, 2011

Service Area: Connect Transit (renewal)

County of Service: Galveston

FY11 Amount not to exceed: \$3,500/mo

Description: This Agreement is for the lease of 200 parking spaces at MOM including lighting, security and parking. The space will be utilized to facilitate the continuation of express and park & ride transit services.

MH SERVICES ACTION ITEMS

- m) **Consider the ratification of the renewal agreement between the Gulf Coast Center and East Texas Behavioral HealthCare Network for a comprehensive regional authorization process offered and utilized by designated ETBHN member centers.** On motion by Jim Floyd, seconded by Trey Picard, the board voted to approve the ratification of the renewal agreement between the Gulf Coast Center and East Texas Behavioral HealthCare Network. The motion carried with all members voting in favor.

Term: September 1, 2010 – August 31, 2011

Service Area: MH Services (renewal) County of Service: Galveston/Brazoria

Rate of Reimbursement: \$2,390.00/month (increase from FY10 of \$150/mo)

Description: ETBHN shall be responsible for providing qualified individuals to provide implementation, coordination, authorizations for clinical services, and consultation services for the regional authorization process for certain ETBHN member Centers.

- n) **Consider the approval of the amendment to the Professional Psychiatric Services Agreement between the Gulf Coast Center and Correctional Medical Services Inc for comprehensive psychiatric and mental health services in the Galveston County Jail.** On motion by Robert Flick, seconded by Trey Picard the board voted to approve the amendment to the Professional Psychiatric Services Agreement between the Gulf Coast Center and Correctional Medical Services, Inc. Following discussion the motion carried with all members voting in favor.

Term: October 1, 2010 – September 30, 2011

Service Area: MH Adult (renewal) County of Service: Galveston

FY11 Amount not to exceed: \$170,000 (no increase from FY10)

Description: CMS provides services to consumers incarcerated in the Galveston County Jail. Services include screening, assessment, crisis intervention, patient education and psychiatric consultation.

- o) **Consider the approval of the new Professional Psychiatric Services Agreement between the Gulf Coast Center and J ALLEN AND ASSOCIATES OF TEXAS, LLC. for comprehensive telepsychiatric and mental health services in the Brazoria County Jail.** On motion by Caroline Rickaway, seconded by Trey Picard, the board voted to approve the new Professional Psychiatric Services Agreement between the Gulf Coast Center and J Allen and Associates of Texas, LLC. Following discussion the motion carried with all members voting in favor.

Term: November 1, 2010 – October 31, 2011

Service Area: MH Adult (new) County of Service: Brazoria

FY11 Amount not to exceed: \$32,000

Description: J Allen will provide services to consumers incarcerated in the Brazoria County Jail. Services will be provided via telemedicine and will include screening, assessment, crisis intervention, patient education and psychiatric consultation (\$1000/mo) and psychiatric medication to Gulf Coast Center covered clients during their incarceration (amount not to exceed \$20,000 annually).

6. **PENDING ACTION ITEMS:**

Pending Action Items are those items which were on a prior board agenda but not completely resolved.

- a) **Consider the ratification of the Interlocal Agreement between the Gulf Coast Center, Bluebonnet Trails Community MHMR Center, Gulf Bend MHMR Center, Tri-County MHMR Services and Spindletop MHMR Services for implementation and coordination of the Veterans Services Collaborative Grant.** On motion by David Harrington, seconded by Robert Flick, the board voted to approve the ratification of the Interlocal Agreement between the Gulf Coast Center, Bluebonnet Trails Community MHMR Center, Gulf Bend MHMR Center, Tri-County MHMR Services and Spindletop MHMR Services. The motion carried with all members voting in favor.

Term: March 1, 2010 – September 30, 2011

- b) **Consider the approval of Amendments to SSBG (HGAC) provider contracts.** On motion by David Harrington, seconded by Trey Picard, the board voted to approve the recommended Amendments #2 to SSBG (HGAC) provider contracts. The motion carried with all members voting in favor.

7. **EXECUTIVE DIRECTOR'S CALENDAR:**

- a) **Review of the Financial Report** G Michael Winburn, Executive Director – reported that for the month of September, which is the first month of FY2011, the Center recognized operating expenses of \$3,626,677 and operating revenues of \$3,640,373, for a positive operating variance of \$13,696. Mr. Winburn also reported that the Executive Management Team is working on a financial plan to address budget concerns and once the financial plan is complete the management team is planning to have a budget workshop with the board to go over the financial plan and potential cuts. No action required.

- b) **Grant Activity Update** Mike Winburn reported on the status of the Brazoria County Crisis Respite Program (Bayou House). The program was initiated and funded through SSBG grant funds, grant funds scheduled to end 9/30/10. Due to continued underutilization, when the grant ends, Center staff will recommend that the program be closed pending future centerwide financial discussions. Mr. Winburn also reported that after meeting with Dickinson ISD personnel, then reviewing the Dickinson ISD Riding Program operations at Lone Oak Ranch, it was determined that the Center will not be able to fully achieve the operational standards Dickinson ISD requires, and that it was not financially efficient for the Center to continue the program, therefore the program will be ended. Additionally, after completing operational reviews and holding discussions with the Gulf Coast Homeless Coalition ("Coalition"), the Center has given the Coalition the required notification that it will end its contractual relationship with the Coalition to act as the HMIS provider for the Coalition and its agencies. The Center will work with the Coalition and HUD to facilitate a smooth transition, with a goal to have the transition complete no later than the end of January 2011. Mr. Winburn also reported that the Center recently received its YAGA Children's Fund grant award which totaled almost \$10,000. Mr. Winburn noted the funds were critical to the Center's MH Children's Services' ability to provide flexible spending funds for children served, and thank David Harrington for his continued support and efforts in assisting the Center continued to be considered for these critical funds. No action required.
- c) **Presentation and Review of State Comparative Reports** Pat Wareing, Chief Operating Officer – provided reports relating to Developmental Disabilities and HCS Services. Mike Winburn provided reports on estimated DSHS and DADS proposed budget reductions. No action required.
- d) **Review and Discussion of ETBHN Activities and Updates** Mike Winburn reported that ETBHN recently held a retreat in Galveston; which had a focus of continued efforts to consolidate services and expand collaborative efforts. Another retreat is scheduled for November 17th, and will include a consultant and further information on facilitating change. No action required.
- e) **Presentation of Calendar of Upcoming Events** – The calendar of upcoming events was presented and discussed. No action required.
- **Veteran's Day** – November 11, 2010, Center will host luncheon for Center Veteran's
 - **All Center Staff Meeting** – December 10, 2010; College of the Mainland
 - **Texas Council Annual Conference** – June 15 – 17, 2011, Westin Galleria, Houston Texas
- f) **Review Texas Council Community MHMR Center Activities and Updates** - The Center partnered with UTMB on an article entitled "Continuum of Care Approach Strong Enough to Weather a Disaster" that was published in the October 2010 web publication of Behavioral Healthcare, and will present the article at the next Texas Council meeting. No action required.
- g) **New Transit Provider for Sunshine Training Center/Golden Rule**. Rick Elizondo, Chief Financial Officer, distributed an informational flyer on new transit service. No action required.
8. **ADJOURN** There being no further business to bring before the Board of Trustees; the meeting was adjourned at 8:07 p.m.

Respectfully,


Ronda Wilson, Secretary

Approved as Content and Form,


Jamie Travis, Chair

AGENDA

ITEM

#3

COUNTY OF GALVESTON

BANK RECONCILIATION District Clerk - General Account for Civil

BANK ACCOUNT MNB #3010011785

MONTH Dec-10

PREPARED BY RW

	BEGINNING BALANCE	DEPOSITS	WITHDRAWALS	ENDING BALANCE
BALANCES PER BANK	212,390 23	158,504 95	83,226 98	287,668 20
DEPOSITS IN TRANSIT				
Prior Month				
Current Month				
OUTSTANDING CHECKS				
Prior Month				
Current Month				
(See Detail List Attached)				
ADJUSTMENT TO BANK BALANCE				
Interest				-
ADJUSTED BANK BALANCE	212,390 23	158,504 95	83,226 98	287,668 20

	BEGINNING BALANCE	RECEIPTS	DISBURSEMENTS	ENDING BALANCE
BALANCES PER BOOKS	212,390 23	158,504 95	83,226 98	287,668 20
ADJUSTMENTS TO BOOKS				
				-
ADJUSTED BOOK BALANCE	212,390 23	158,504 95	83,226 98	287,668 20



Account Reconciliation Report

TXGALVESTONPROD

Date Range 11/30/2010 to 12/31/2010

Bank Account 3010012205 - District Clerk Registry Non-Interest Bearing

Beginning Balance \$212,390.23

Payments

Transaction Date	Transaction Type Reference #	Detail	Amount
11/04/2010	Check 1024	Clear Creek ISD on account no. 2985-0007-0009-001 22 - District Clerk Registry Liabilities	-\$2,083.04
11/17/2010	Check 1034	Sammy Charles Orlando & Eddie S. Orlando 22 - District Clerk Registry Liabilities	-\$3,840.19
11/17/2010	Check 1035	Latonia D. Wilson, District Clerk 22 - District Clerk Registry Liabilities	-\$50.00
11/18/2010	Check 1036	Santa Fe ISD 22 - District Clerk Registry Liabilities	-\$742.45
11/18/2010	Check 1038	Galveston County Tax Office on account number 3040-0230-0001-000 22 - District Clerk Registry Liabilities	-\$631.55
11/18/2010	Check 1039	Dickinson ISD 22 - District Clerk Registry Liabilities	-\$641.06
11/22/2010	Check 1041	Mr. Dick Gregg, Jr., Gregg & Gregg, P.C. 22 - District Clerk Registry Liabilities	-\$9,950.00
11/30/2010	Check 1043	Frank, Elmore, Lievens, Chesney & Turek, L.L.P., E I N 76-0522235 22 - District Clerk Registry Liabilities	-\$13,747.45
12/01/2010	Check 1045	Latonia D. Wilson, District Clerk 22 - District Clerk Registry Liabilities	-\$32.09
12/02/2010	Check 1046	Chazz McKinney 22 - District Clerk Registry Liabilities	-\$3,950.00
12/02/2010	Check 1047	Texas City Police Department 22 - District Clerk Registry Liabilities	-\$10,000.00
12/02/2010	Check 1048	Latonia D. Wilson, District Clerk 22 - District Clerk Registry Liabilities	-\$50.00
12/02/2010	Check 1049	Milad Elias 22 - District Clerk Registry Liabilities	-\$14,900.00
12/02/2010	Check 1050	Latonia D. Wilson, District Clerk 22 - District Clerk Registry Liabilities	-\$100.00
12/02/2010	Check 1052	Latonia D. Wilson, District Clerk 22 - District Clerk Registry Liabilities	-\$44.23
12/02/2010	Check 1053	Mary Stow IOLTA for the benefit of Linda Traylor 22 - District Clerk Registry Liabilities	-\$1,640.54
12/02/2010	Check 1054	Mary Stow IOLTA for the benefit of Orel Traylor 22 - District Clerk Registry Liabilities	-\$1,640.53
12/02/2010	Check 1055	Latonia D. Wilson, District Clerk 22 - District Clerk Registry Liabilities	-\$50.00



Account Reconciliation Report

TXGALVESTONPROD

Date Range 11/30/2010 to 12/31/2010

Bank Account 3010012205 – District Clerk Registry Non-Interest Bearing

Transaction Date	Transaction Type Reference #	Detail	Amount
12/03/2010	Check 1056	Kenneth H. Pearce 22 – District Clerk Registry Liabilities	-\$237.50
12/03/2010	Check 1057	Latonia D. Wilson, District Clerk 22 – District Clerk Registry Liabilities	-\$12.50
12/08/2010	Check 1059	Latonia D. Wilson, District Clerk 22 – District Clerk Registry Liabilities	-\$50.00
12/09/2010	Check 1061	LATONIA D WILSON GALVESTON COUNTY DISTRICT CLERK 22 – District Clerk Registry Liabilities	-\$5.00
12/09/2010	Check 1063	LATONIA D WILSON GALVESTON COUNTY DISTRICT CLERK 22 – District Clerk Registry Liabilities	-\$8.00
12/15/2010	Check 1058	Mary Stow IOLTA for the benefit of Mattie Griffith, Trustee 22 – District Clerk Registry Liabilities	-\$5,445.09
12/21/2010	Check 1064	Mary Stow IOLTA for the benefit of the Robert James Tinkle Trust 22 – District Clerk Registry Liabilities	-\$13,328.76
12/21/2010	Check 1065	Latonia D. Wilson, District Clerk 22 – District Clerk Registry Liabilities	-\$50.00
Total Number of Payments		26	Total Payments -\$83,226.98

Deposits

Transaction Date	Transaction Type Reference #	Detail	Amount
11/30/2010	Deposit	Deposit 22 – District Clerk Registry Liabilities	\$59,644.20
12/01/2010	Deposit	Deposit 22 – District Clerk Registry Liabilities	\$3,600.00
12/02/2010	Deposit	Deposit 22 – District Clerk Registry Liabilities	\$34,000.00
12/06/2010	Deposit	Deposit 22 – District Clerk Registry Liabilities	\$750.00
12/10/2010	Deposit	Deposit 22 – District Clerk Registry Liabilities	\$53,284.76
12/14/2010	Deposit	Deposit 22 – District Clerk Registry Liabilities	\$5,000.00
12/15/2010	Deposit	Deposit 22 – District Clerk Registry Liabilities	\$2,048.98
12/27/2010	Deposit	Deposit 22 – District Clerk Registry Liabilities	\$200.00
Total Number of Deposits		8	Total Deposits \$158,504.95



Account Reconciliation Report

TXGALVESTONPROD

Date Range 11/30/2010 to 12/31/2010

Bank Account 3010012205 -- District Clerk Registry Non-Interest Bearing

Total Cleared Transactions 7

Ending Balance \$287,668.20

COUNTY OF GALVESTON

BANK RECONCILIATION District Clerk - GENERAL

BANK ACCOUNT MNB #3010005324

MONTH Dec-10

PREPARED BY RW

	BEGINNING BALANCE	DEPOSITS	WITHDRAWALS	ENDING BALANCE
BALANCES PER BANK	1,601,618 82	-	90,198 75	1,511,420 07
DEPOSITS IN TRANSIT				
Prior Month November-10				
Current Month December-10				
OUTSTANDING CHECKS				
Prior Month November-10	(109,615 85)		(109,615 85)	
Current Month December-10			119,417 10	(119,417 10)
(See Detail List Attached)				
ADJUSTMENT TO BANK BALANCE				
ADJUSTED BANK BALANCE	1,492,002 97	-	100,000 00	1,392,002 97

	BEGINNING BALANCE	RECEIPTS	DISBURSEMENTS	ENDING BALANCE
BALANCES PER BOOKS	1,492,002 97	-	100,000 00	1,392,002 97
ADJUSTMENTS TO BOOKS				
ADJUSTED BOOK BALANCE	1,492,002 97	-	100,000 00	1,392,002 97

LIST OF OUTSTANDING CHECKS

DEPOSITS IN TRANSIT

REFERENCE NUMBER	DEPOSIT DATE	DEPOSIT AMOUNT

REFERENCE NUMBER	DEPOSIT DATE	DEPOSIT AMOUNT
TOTAL		
DEPOSITS IN TRANSIT		\$0 00

DATE 01/12/11
TIME 16 39

COUNTY OF GALVESTON, TEXAS
DAILY BANK BALANCE
GENERAL ACCOUNT
IN THE HANDS OF THE DISTRICT CLERK
ON 12/31/2010
ACTIVITY FROM 12/01/2010

PAGE 1
JURL14 RLE

CASH IN DEMAND ACCOUNT

DEPOSITS IN TRANSIT	. . . . .	0 00
TOTAL FOR PREVIOUS MONTH	. . . . .	1,340,113 24
DEPOSITS IN PERIOD .		0.00
DEPOSITS IN TRANSIT		
TOTAL DEPOSITS IN TRANSIT	.	0 00
UNDEPOSITED FUNDS	. . .	0 00
TOTAL RECEIVED DURING PERIOD	. . . . .	0 00
TOTAL FUNDS TO ACCOUNT FOR	. . . . .	1,340,113 24
DISBURSEMENTS IN PERIOD ..	. . . . .	0 00
CASH IN ACCOUNT		
END OF PERIOD 12/31/2010.	. . . . .	1,340,113 24
		=====

*Ck 1983 written 12-30-10
\$100,000.00
To Partially fund account
for Jason Murray*

COUNTY OF GALVESTON

BANK RECONCILIATION District Clerk - Registry

BANK ACCOUNT MNB #3010005332

MONTH Dec-10 PREPARED BY RW

	BEGINNING BALANCE	DEPOSITS	WITHDRAWALS	ENDING BALANCE
BALANCES PER BANK	498,654 58	625,225 14	545,121 03	578,758 69
DEPOSITS IN TRANSIT				
Prior Month November-10				
Current Month December-10				
OUTSTANDING CHECKS				
Prior Month November-10	(34,821 59)		(34,821 59)	
Current Month December-10			71,705 76	(71,705 76)
(See Detail List Attached)				
ADJUSTMENT TO BANK BALANCE				
Interest		879 19		879 19
ADJUSTED BANK BALANCE	463,832 99	626,104 33	582,005 20	507,932 12

	BEGINNING BALANCE	RECEIPTS	DISBURSEMENTS	ENDING BALANCE
BALANCES PER BOOKS	463,832 99	605,378 37	582,005 20	487,206 16
ADJUSTMENTS TO BOOKS				
Interest		879 19		879 19
Deposit in Transit from prior month		19,846 77		19,846 77
ADJUSTED BOOK BALANCE	463,832 99	626,104 33	582,005 20	507,932 12

LIST OF OUTSTANDING CHECKS

[illegible]

TOTAL	
OUTSTANDING CHECKS	<u>\$71,705.76</u>

DEPOSITS IN TRANSIT

REFERENCE NUMBER	DEPOSIT DATE	DEPOSIT AMOUNT

REFERENCE NUMBER	DEPOSIT DATE	DEPOSIT AMOUNT

TOTAL	
DEPOSITS IN TRANSIT	\$0 00

void	2455	12/1/10	\$ 7,500 00
void	2456	12/1/10	\$ 410 10
\$ 142 66	2457	12/2/10	\$ 452 44
\$ 3,283 90	2458	12/2/10	\$ 507,372 54
\$ 15,583 19	2459	12/2/10	\$ 711 34
\$ 337 02	2460	12/2/10	\$ 36,000 00
\$ 393 04	2461	12/3/10	\$ 9,626 04
\$ 17 06	2462	12/3/10	\$ 42,805 91
\$ 383 87	2463	12/7/10	\$ 500 00
\$ 7 07	2464	12/7/10	<u>\$ 605,378 37</u>
\$ 60 38	2465	12/7/10	\$ 879 19 interest
\$ 1 12	2466	12/7/10	<u>\$ 606,257 56</u>
\$ 3,493 09	2467	12/10/10	
\$ 13 57	2468	12/10/10	
\$ 684 84	2469	12/13/10	
\$ 26 50	2470	12/13/10	
\$ 386 59	2471	12/14/10	
void	2472	12/14/10	
\$ 503,479 29	2473	12/16/10	
\$ 8,316 67	2474	12/23/10	
\$ 495 41	2475	12/23/10	
\$ 780 06	2476	12/23/10	
\$ 33 90	2477	12/23/10	
\$ 780 06	2478	12/23/10	
void	2479	12/28/10	
\$ 90 48	2480	12/28/10	
\$ 42,715 43	2481	12/28/10	
\$ 500 00	2482	12/29/10	
<u>\$ 582,005.20</u>			

COUNTY OF GALVESTON

BANK RECONCILIATION District Clerk - Fee

BANK ACCOUNT MNB #3010005340

MONTH Dec-10

PREPARED BY RW

		BEGINNING BALANCE	DEPOSITS	WITHDRAWALS	ENDING BALANCE
BALANCES PER BANK		480,921 24	1,596 95	1,412 95	481,105 24
DEPOSITS IN TRANSIT					
Prior Month	Nov-10	149 75	-149 75		
Current Month	Dec-10				
OUTSTANDING CHECKS					
Prior Month	Nov-10	-224,485 20		-224,485 20	
Current Month	Dec-10			232,995 45	-232,995 45
(See Detail List Attached)					
ADJUSTMENT TO BANK BALANCE					
Interest			612 97		612 97
ADJUSTED BANK BALANCE		256,585 79	2,060 17	9,923 20	248,722 76

		BEGINNING BALANCE	RECEIPTS	DISBURSEMENTS	ENDING BALANCE
BALANCES PER BOOKS		256,585 79	1,597 20	9,923 20	248,259 79
ADJUSTMENTS TO BOOKS					
Interest			612 97		612 97
Credit Card Payment--ACH Deposit made in demand account			-50 00		-50 00
Credit Card Payment--ACH Deposit made in demand account			-50 00		-50 00
Credit Card Payment--ACH Deposit made in demand account			-50 00		-50 00
ADJUSTED BOOK BALANCE		256,585 79	2,060 17	9,923 20	248,722 76

**COUNTY OF GALVESTON
BANK RECONCILIATION
LIST OF OUTSTANDING CHECKS
DEPOSIT IN TRANSIT**

LIST OF OUTSTANDING CHECKS

CHECK NUMBER	CHECK DATE	CHECK AMOUNT
2406	01/05/06	30 00
2412	01/05/06	2 00
2472	02/09/06	90 00
2477	02/09/06	2 00
2484	02/10/06	10 00
2507	02/10/06	4 95
2531	02/14/06	36 00
2555	02/15/06	10 00
2586	02/22/06	8 00
2624	02/28/06	4 95
2663	03/09/06	3 00
2688	03/22/06	3 00
2742	04/12/06	30 00
2749	04/13/06	5 00
2865	06/14/06	3 00
2883	06/19/06	5 00
2907	07/10/06	8 00
2913	07/10/06	3 45
2921	07/10/06	8 00
3179	03/19/07	12,136 00
3211	04/18/07	2 00
3244	05/05/07	9,210 00
3343	08/22/07	65 00

CHECK NUMBER	CHECK DATE	CHECK AMOUNT
3346	08/27/07	15,025 00
3403	10/17/07	15 00
3404	10/17/07	78 00
3441	11/19/07	7,784 39
3451	11/21/07	2 00
3455	11/21/07	4 50
3465	11/28/07	7,626 42
3775	10/14/08	20,665 83
3818	11/20/08	19,658 64
3878	01/23/09	9,393 00
3930	03/11/09	7,824 00
3941	03/18/09	8,144 00
3952	03/27/09	11,639 24
3966	04/07/09	25,203 00
3986	04/23/09	5,756 63
4079	07/15/09	14,601 65
4201	11/12/09	23,576 05
4284	01/27/10	15,680 00
4360	04/08/10	9,975 75
4458	07/13/10	3 00
4546	12/29/10	8,640 00
4547	12/30/10	20 00

TOTAL OUTSTANDING CHECKS 232,995 45

DEPOSITS IN TRANSIT

REFERENCE NUMBER	DEPOSIT DATE	DEPOSIT AMOUNT
	07/30/10	80 00

REFERENCE NUMBER	DEPOSIT DATE	DEPOSIT AMOUNT

TOTAL
DEPOSITS IN TRANSIT 80 00

Dec

300 00	4536	12/2/11
294 00	4537	12/6/11
98 00	4538	12/7/11
45 00	4539	12/8/11
149 00	4540	12/13/11
80 00	4541	12/20/11
65 00	4542	12/21/11
77 20	4543	12/23/11
90 00	4544	12/27/11
65 00	4545	12/28/11
8,640 00	4546	12/29/11
20 00	4547	12/30/11
9,923.20		

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Thursday January 13 2011 12

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Created on Thu Jan 13, 2011 12:22:02 PST

Search Criteria

Transactions Received Earlier

Confirmation # = 635383

December 2010

Internet Payments (Click on column heading to sort)										
Statutory Filing Fees (Internet Payments)										
Date/Time	Status	Amount	Type	Confirmation #	Identifier 1	Identifier 2	Identifier 3	Identifier 4	Identifier 5	Identifier 6
2010-12-28 10:49:50	Success	50.00	V	635383	070607	-	-	-	-	-

No payments were made via the telephone for this search criteria.

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Thursday, January 13, 2011 12:12

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Created on Thu Jan 13, 2011 12:22:57 PST

Search Criteria

Transactions Received Earlier

Confirmation # = 885945

September 2010

Internet Payments (Click on column heading to sort)									
Statutory Filing Fees (Internet Payments)									
Date/Time	Status	Amount	Type	Confirmation #	Identifier 1	Identifier 2	Identifier 3	Identifier 4	Identifier 5
2010-09-17 09:55:24	Success	50.00	V	885945	070607				

No payments were made via the telephone for this search criteria

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Thursday, January 13, 2011 12:04 PM

[Logout](#)[Help](#)[Search for Transaction](#)[View Daily Transaction Log](#)[View Monthly Summary](#)[Search for Transaction -](#)**Galveston County District Clerk**

Created on Thu Jan 13, 2011 12:04:32 PST

Search Criteria

Transactions Received Earlier

Confirmation # = 329013

December 2010

Internet Payments (Click on column heading to sort)										
Statutory Filing Fees (Internet Payments)										
Date/Time	Status	Amount	Type	Confirmation #	Identifier 1	Identifier 2	Identifier 3	Identifier 4	Identifier 5	Identifier 6
2010-12-02 19:14:42	Success	50.00	MF	329013	00031735					

No payments were made via the telephone for this search criteria

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DATE: 01/13/11
TIME: 13:07

COUNTY OF GALVESTON, TEXAS
DAILY BANK BALANCE
FEE ACCOUNT
IN THE HANDS OF THE DISTRICT CLERK
ON 12/31/2010
ACTIVITY FROM 12/01/2010

PAGE: 1
JURL14 RLE

CASH IN DEMAND ACCOUNT

DEPOSITS IN TRANSIT..... 0.00

TOTAL FOR PREVIOUS MONTH..... 507,826.79

30	125314DA	300.00
30	125319DA	294.00
30	125325DA	100.00
30	125330DA	45.00
30	125333DA	169.00
30	125339DA	105.00
30	125343DA	65.00
30	125346DA	77.20
30	125352DA	357.00
30	125358RW	65.00
30	125359RW	20.00
30	125362RW	0.01 612 97 interest

DEPOSITS IN PERIOD..... 1,597.21

DEPOSITS IN TRANSIT

TOTAL DEPOSITS IN TRANSIT..... 0.00

UNDEPOSITED FUNDS..... 0.00

TOTAL RECEIVED DURING PERIOD..... 1,597.21

TOTAL FUNDS TO ACCOUNT FOR..... 509,424.00

20	152289	4536	300.00-
20	152290	4537	264.87-
20	152290	4537	28.14-
20	152290	4537	0.99-
20	152291	4538	50.96-
20	152291	4538	41.11-
20	152291	4538	5.93-
20	152292	4539	11.96-
20	152292	4539	30.64-
20	152292	4539	2.40-
20	152293	4540	40.28-
20	152293	4540	98.42-
20	152293	4540	10.30-
20	152294	4541	53.67-
20	152294	4541	25.02-
20	152294	4541	1.31-
20	152295	4542	56.05-

DATE: 01/13/11
TIME: 13:07

COUNTY OF GALVESTON, TEXAS
DAILY BANK BALANCE
FEE ACCOUNT
IN THE HANDS OF THE DISTRICT CLERK
ON 12/31/2010
ACTIVITY FROM 12/01/2010

PAGE: 2
JURL14 RLE

20	152295	4542	7.96-
20	152295	4542	0.99-
20	152296	4543	54.59-
20	152296	4543	21.25-
20	152296	4543	1.36-
20	152297	4544	22.90-
20	152297	4544	63.59-
20	152297	4544	3.51-
20	152298	4545	54.35-
20	152298	4545	9.76-
20	152298	4545	0.89-
20	152299	4547	16.36-
20	152299	4547	3.03-
20	152299	4547	0.61-

*OK 4546 To
Tax Martin
8,640.00
disbursed in
Odyssey*

DISBURSEMENTS IN PERIOD..... 1,283.20-

CASH IN ACCOUNT

END OF PERIOD 12/31/2010..... 508,140.80

=====

AGENDA

ITEM

#4a



Department of Justice
Office of Justice Programs

Bureau of Justice Assistance

Office of Justice Programs

Washington, DC 20531

September 4, 2009

The Honorable James Yarbrough
Galveston County
722 Moody
Galveston, TX 77550-2301

Dear Judge Yarbrough

On behalf of Attorney General Eric Holder, it is my pleasure to inform you that the Office of Justice Programs has approved your application for funding under the FY 09 Edward Byrne Memorial Justice Assistance Grant Program Local Solicitation in the amount of \$126,002 for Galveston County.

Enclosed you will find the Grant Award and Special Conditions documents. This award is subject to all administrative and financial requirements, including the timely submission of all financial and programmatic reports, resolution of all interim audit findings, and the maintenance of a minimum level of cash-on-hand. Should you not adhere to these requirements, you will be in violation of the terms of this agreement and the award will be subject to termination for cause or other administrative action as appropriate.

If you have questions regarding this award, please contact

- Program Questions: Emerald C. Womack, Program Manager at (202) 353-3450, and
- Financial Questions, the Office of the Chief Financial Officer, Customer Service Center (CSC) at (800) 458-0786, or you may contact the CSC at ask.ocfo@usdoj.gov

Congratulations and we look forward to working with you.

Sincerely,

James H. Burch II
Acting Director

Enclosures



Department of Justice
Office of Justice Programs
Office for Civil Rights

Washington, D.C. 20531

September 4, 2009

The Honorable James Yarbrough
Galveston County
722 Moody
Galveston, TX 77550-2301

Dear Judge Yarbrough:

Congratulations on your recent award. In establishing financial assistance programs, Congress linked the receipt of Federal funding to compliance with Federal civil rights laws. The Office for Civil Rights (OCR), Office of Justice Programs (OJP), U.S. Department of Justice, is responsible for ensuring that recipients of financial aid from OJP, its component offices and bureaus, the Office on Violence Against Women (OVW), and the Office of Community Oriented Policing Services (COPS) comply with applicable Federal civil rights statutes and regulations. We at OCR are available to help you and your organization meet the civil rights requirements that come with Justice Department funding.

Ensuring Access to Federally Assisted Programs

As you know, Federal laws prohibit recipients of financial assistance from discriminating on the basis of race, color, national origin, religion, sex, or disability in funded programs or activities, not only in respect to employment practices but also in the delivery of services or benefits. Federal law also prohibits funded programs or activities from discriminating on the basis of age in the delivery of services or benefits.

Providing Services to Limited English Proficiency (LEP) Individuals

In accordance with Department of Justice Guidance pertaining to Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d, recipients of Federal financial assistance must take reasonable steps to provide meaningful access to their programs and activities for persons with limited English proficiency (LEP). For more information on the civil rights responsibilities that recipients have in providing language services to LEP individuals, please see the website at <http://www.lep.gov>.

Ensuring Equal Treatment for Faith-Based Organizations

The Department of Justice has published a regulation specifically pertaining to the funding of faith-based organizations. In general, the regulation, Participation in Justice Department Programs by Religious Organizations, Providing for Equal Treatment of all Justice Department Program Participants, and known as the Equal Treatment Regulation 28 C.F.R. part 38, requires State Administering Agencies to treat these organizations the same as any other applicant or recipient. The regulation prohibits State Administering Agencies from making award or grant administration decisions on the basis of an organization's religious character or affiliation, religious name, or the religious composition of its board of directors.

The regulation also prohibits faith-based organizations from using financial assistance from the Department of Justice to fund inherently religious activities. While faith-based organizations can engage in non-funded inherently religious activities, they must be held separately from the Department of Justice funded program, and customers or beneficiaries cannot be compelled to participate in them. The Equal Treatment Regulation also makes clear that organizations participating in programs funded by the Department of Justice are not permitted to discriminate in the provision of services on the basis of a beneficiary's religion. For more information on the regulation, please see OCR's website at <http://www.ojp.usdoj.gov/ocr/etfb.htm>.

State Administering Agencies and faith-based organizations should also note that the Safe Streets Act, as amended, the Victims of Crime Act, as amended, and the Juvenile Justice and Delinquency Prevention Act, as amended, contain prohibitions against discrimination on the basis of religion in employment. Despite these nondiscrimination provisions, the Justice Department has concluded that the Religious Freedom Restoration Act (RFRA) is reasonably construed, on a case-by-case basis, to require that its funding agencies permit faith-based organizations applying for funding under the applicable program statutes both to receive DOJ funds and to continue considering religion when hiring staff, even if the statute that authorizes the funding program generally forbids considering of religion in employment decisions by grantees.

Questions about the regulation or the application of RFRA to the statutes that prohibit discrimination in employment may be directed to this Office.

Enforcing Civil Rights Laws

All recipients of Federal financial assistance, regardless of the particular funding source, the amount of the grant award, or the number of employees in the workforce, are subject to the prohibitions against unlawful discrimination. Accordingly, OCR investigates recipients that are the subject of discrimination complaints from both individuals and groups. In addition, based on regulatory criteria, OCR selects a number of recipients each year for compliance reviews, audits that require recipients to submit data showing that they are providing services equitably to all segments of their service population and that their employment practices meet equal employment opportunity standards.

Complying with the Safe Streets Act or Program Requirements

In addition to these general prohibitions, an organization which is a recipient of financial assistance subject to the nondiscrimination provisions of the Omnibus Crime Control and Safe Streets Act (Safe Streets Act) of 1968, 42 U.S.C. § 3789d(c), or other Federal grant program requirements, must meet two additional requirements: (1) complying with Federal regulations pertaining to the development of an Equal Employment Opportunity Plan (EEO Plan), 28 C.F.R. § 42.301-308, and (2) submitting to OCR Findings of Discrimination (see 28 C.F.R. §§ 42.205(5) or 31.202(5)).

1) Meeting the EEO Plan Requirement

In accordance with Federal regulations, Assurance No. 6 in the Standard Assurances, COPS Assurance No. 8 B, or certain Federal grant program requirements, your organization must comply with the following EEO Plan reporting requirements:

If your organization has received an award for \$500,000 or more and has 50 or more employees (counting both full- and part-time employees but excluding political appointees), then it has to prepare an EEO Plan and submit it to OCR for review **within 60 days from the date of this letter**. For assistance in developing an EEO Plan, please consult OCR's website at <http://www.ojp.usdoj.gov/ocr/eoep.htm>. You may also request technical assistance from an EEO Plan specialist at OCR by dialing (202) 616-3208.

If your organization received an award between \$25,000 and \$500,000 and has 50 or more employees, your organization still has to prepare an EEO Plan, but it does not have to submit the EEO Plan to OCR for review. Instead, your organization has to maintain the EEO Plan on file and make it available for review on request. In addition, your organization has to complete Section B of the Certification Form and return it to OCR. The Certification Form can be found at <http://www.ojp.usdoj.gov/ocr/eoep.htm>.

If your organization received an award for less than \$25,000, or if your organization has less than 50 employees, regardless of the amount of the award, or if your organization is a medical institution, educational institution, nonprofit organization or Indian tribe, then your organization is exempt from the EEO Plan requirement. However, your organization must complete Section A of the Certification Form and return it to OCR. The Certification Form can be found at <http://www.ojp.usdoj.gov/ocr/eoep.htm>.

2) Submitting Findings of Discrimination


In the event a Federal or State court or Federal or State administrative agency makes an adverse finding of discrimination against your organization after a due process hearing, on the ground of race, color, religion, national origin, or sex, your organization must submit a copy of the finding to OCR for review.

Ensuring the Compliance of Subrecipients

If your organization makes subawards to other agencies, you are responsible for ensuring that subrecipients also comply with all of the applicable Federal civil rights laws, including the requirements pertaining to developing and submitting an EEO Plan, reporting Findings of Discrimination, and providing language services to LEP persons. State agencies that make subawards must have in place standard grant assurances and review procedures to demonstrate that they are effectively monitoring the civil rights compliance of subrecipients.

If we can assist you in any way in fulfilling your civil rights responsibilities as a recipient of Federal funding, please call OCR at (202) 307-0690 or visit our website at <http://www.ojp.usdoj.gov/ocr/>.

Sincerely,



Michael L. Alston
Director

cc: Grant Manager
Financial Analyst



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

Grant

PAGE 1 OF 5

1 RECIPIENT NAME AND ADDRESS (including Zip Code)

Galveston County
722 Moody
Galveston, TX 77550-2301

4 AWARD NUMBER 2009-DJ BX-1445

5 PROJECT PERIOD FROM 10/01/2008 TO 09/30/2012
BUDGET PERIOD FROM 10/01/2008 TO 09/30/2012

1A GRANTEE IRS/VENDOR NO
746000909

6 AWARD DATE 09/04/2009 7 ACTION
8 SUPPLEMENT NUMBER Initial
00

3 PROJECT TITLE
FY 2009 Justice Assistance Grant Program

9 PREVIOUS AWARD AMOUNT \$ 0
10 AMOUNT OF THIS AWARD \$ 126,002
11 TOTAL AWARD \$ 126,002

12 SPECIAL CONDITIONS

THE ABOVE GRANT PROJECT IS APPROVED SUBJECT TO SUCH CONDITIONS OR LIMITATIONS AS ARE SET FORTH
ON THE ATTACHED PAGE(S)

13 STATUTORY AUTHORITY FOR GRANT

This project is supported under 42 U.S.C. 3751(a) (BJA - JAG Formula)

15 METHOD OF PAYMENT

PAPRS

AGENCY APPROVAL

GRANTEE ACCEPTANCE

16 TYPED NAME AND TITLE OF APPROVING OFFICIAL

James H. Burch II
Acting Director

18 TYPED NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL

James Yarbrough
County Judge

17 SIGNATURE OF APPROVING OFFICIAL

19 SIGNATURE OF AUTHORIZED RECIPIENT OFFICIAL 19A DATE

AGENCY USE ONLY

20 ACCOUNTING CLASSIFICATION CODES

FISCAL YEAR	FUND CODE	BUDGET ACT	DIVISION OFC	REG	SUB	POMS	AMOUNT
N	B	DJ	80	00	00		126002

21 IDJUG-14906



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

**AWARD CONTINUATION
SHEET**
Grant

PAGE 2 OF 5

PROJECT NUMBER 2009 DJ BX-1445

AWARD DATE 09/04/2009

SPECIAL CONDITIONS

- 1 The recipient agrees to comply with the financial and administrative requirements set forth in the current edition of the Office of Justice Programs (OJP) Financial Guide.
- 2 The recipient acknowledges that failure to submit an acceptable Equal Employment Opportunity Plan (if recipient is required to submit one pursuant to 28 C.F.R. Section 42.302), that is approved by the Office for Civil Rights, is a violation of its Certified Assurances and may result in suspension or termination of funding, until such time as the recipient is in compliance.
- 3 The recipient agrees to comply with the organizational audit requirements of OMB Circular A-133 Audits of States, Local Governments, and Non-Profit Organizations, and further understands and agrees that funds may be withheld, or other related requirements may be imposed, if outstanding audit issues (if any) from OMB Circular A-133 audits (and any other audits of OJP grant funds) are not satisfactorily and promptly addressed, as further described in the current edition of the OJP Financial Guide, Chapter 19.
- 4 Recipient understands and agrees that it cannot use any federal funds, either directly or indirectly, in support of the enactment, repeal, modification or adoption of any law, regulation or policy, at any level of government, without the express prior written approval of OJP.
- 5 The recipient must promptly refer to the DOJ OIG any credible evidence that a principal, employee, agent, contractor, subgrantee, subcontractor, or other person has either 1) submitted a false claim for grant funds under the False Claims Act or 2) committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct involving grant funds. This condition also applies to any subrecipients. Potential fraud, waste, abuse, or misconduct should be reported to the OIG by -

mail:

Office of the Inspector General
U.S. Department of Justice
Investigations Division
950 Pennsylvania Avenue, N.W.
Room 4706
Washington, DC 20530

e-mail: oig Hotline@usdoj.gov

hotline (contact information in English and Spanish) (800) 869-4499

or hotline fax (202) 616-9881

Additional information is available from the DOJ OIG website at www.usdoj.gov/oig



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

AWARD CONTINUATION
SHEET
Grant

PAGE 3 OF 5

PROJECT NUMBER 2009 DJ-BX-1445

AWARD DATE 09/04/2009

SPECIAL CONDITIONS

- 6 The grantee agrees to assist BJA in complying with the National Environmental Policy Act (NEPA), the National Historic Preservation Act, and other related federal environmental impact analyses requirements in the use of these grant funds, either directly by the grantee or by a subgrantee. Accordingly, the grantee agrees to first determine if any of the following activities will be funded by the grant, prior to obligating funds for any of these purposes. If it is determined that any of the following activities will be funded by the grant, the grantee agrees to contact BJA:

The grantee understands that this special condition applies to its following new activities whether or not they are being specifically funded with these grant funds. That is, as long as the activity is being conducted by the grantee, a subgrantee, or any third party and the activity needs to be undertaken in order to use these grant funds, this special condition must first be met. The activities covered by this special condition are:

- a. New construction,
- b. Minor renovation or remodeling of a property located in an environmentally or historically sensitive area, including properties located within a 100-year flood plain, a wetland, or habitat for endangered species, or a property listed on or eligible for listing on the National Register of Historic Places,
- c. A renovation, lease, or any proposed use of a building or facility that will either (a) result in a change in its basic prior use or (b) significantly change its size,
- d. Implementation of a new program involving the use of chemicals other than chemicals that are (a) purchased as an incidental component of a funded activity and (b) traditionally used, for example, in office, household, recreational, or education environments; and
- e. Implementation of a program relating to clandestine methamphetamine laboratory operations, including the identification, seizure, or closure of clandestine methamphetamine laboratories.

The grantee understands and agrees that complying with NEPA may require the preparation of an Environmental Assessment and/or an Environmental Impact Statement, as directed by BJA. The grantee further understands and agrees to the requirements for implementation of a Mitigation Plan as detailed at <http://www.ojp.usdoj.gov/BJA/resource/nepa.html>, for programs relating to methamphetamine laboratory operations.

Application of This Special Condition to Grantee's Existing Programs or Activities: For any of the grantee's or its subgrantees' existing programs or activities that will be funded by these grant funds, the grantee, upon specific request from BJA, agrees to cooperate with BJA in any preparation by BJA of a national or program environmental assessment of that funded program or activity.

- 7 To avoid duplicating existing networks or IT systems in any initiatives funded by BJA for law enforcement information sharing systems which involve interstate connectivity between jurisdiction, such systems shall employ, to the extent possible, existing networks as the communication backbone to achieve interstate connectivity, unless the grantee can demonstrate to the satisfaction of BJA that this requirement would not be cost effective or would impair the functionality of an existing or proposed IT system.
- 8 To support public safety and justice information sharing, OJP requires the grantee to use the National Information Exchange Model (NIEM) specifications and guidelines for this particular grant. Grantee shall publish and make available without restriction all schemas generated as a result of this grant to the component registry as specified in the guidelines. For more information on compliance with this special condition, visit <http://www niem.gov/implementationguide.php>.
- 9 The recipient is required to establish a trust fund account (The trust fund may or may not be an interest-bearing account.) The fund, including any interest, may not be used to pay debts or expenses incurred by other activities beyond the scope of the Edward Byrne Memorial Justice Assistance Grant Program (JAG). The recipient also agrees to obligate and expend the grant funds in the trust fund (including any interest earned) during the period of the grant. Grant funds (including any interest earned) not expended by the end of the grant period must be returned to the Bureau of Justice Assistance no later than 90 days after the end of the grant period, along with the final submission of the Financial Status Report (SI-269).



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

AWARD CONTINUATION
SHEET
Grant

PAGE 4 OF 5

PROJECT NUMBER 2009 DJ BA-1445

AWARD DATE 09/04/2009

SPECIAL CONDITIONS

- 10 The grantee agrees to comply with all reporting, data collection and evaluation requirements, as prescribed by law and detailed by the BJA in program guidance for the Justice Assistance Grant (JAG) Program. Compliance with these requirements will be monitored by BJA.
- 11 The recipient agrees that any information technology system funded or supported by OJP funds will comply with 28 C.F.R. Part 23, Criminal Intelligence Systems Operating Policies, if OJP determines this regulation to be applicable. Should OJP determine 28 C.F.R. Part 23 to be applicable, OJP may, at its discretion, perform audits of the system, as per the regulation. Should any violation of 28 C.F.R. Part 23 occur, the recipient may be fined as per 42 U.S.C. 3789g(c)-(d). Recipient may not satisfy such a fine with federal funds.
- 12 The recipient agrees to ensure that the State Information Technology Point of Contact receives written notification regarding any information technology project funded by this grant during the obligation and expenditure period. This is to facilitate communication among local and state governmental entities regarding various information technology projects being conducted with these grant funds. In addition, the recipient agrees to maintain an administrative file documenting the meeting of this requirement. For a list of State Information Technology Points of Contact, go to <http://www.ojp.gov/dcfault.aspx?area=policyAndPractice&page=1046>.
- 13 The grantee agrees to comply with the applicable requirements of 28 C.F.R. Part 38, the Department of Justice regulation governing "Equal Treatment for Faith Based Organizations" (the "Equal Treatment Regulation"). The Equal Treatment Regulation provides in part that Department of Justice grant awards of direct funding may not be used to fund any inherently religious activities, such as worship, religious instruction, or proselytization. Recipients of direct grants may still engage in inherently religious activities, but such activities must be separate in time or place from the Department of Justice funded program, and participation in such activities by individuals receiving services from the grantee or a sub-grantee must be voluntary. The Equal Treatment Regulation also makes clear that organizations participating in programs directly funded by the Department of Justice are not permitted to discriminate in the provision of services on the basis of a beneficiary's religion. Notwithstanding any other special condition of this award, faith based organizations may, in some circumstances, consider religion as a basis for employment. See http://www.ojp.gov/about/oc/equal_fbo.htm.
- 14 The recipient acknowledges that all programs funded through subawards, whether at the state or local levels, must conform to the grant program requirements as stated in BJA program guidance.
- 15 Grantee agrees to comply with the requirements of 28 C.F.R. Part 46 and all Office of Justice Programs policies and procedures regarding the protection of human research subjects, including obtainment of Institutional Review Board approval, if appropriate, and subject informed consent.
- 16 Grantee agrees to comply with all confidentiality requirements of 42 U.S.C. section 3789g and 28 C.F.R. Part 22 that are applicable to collection, use, and revelation of data or information. Grantee further agrees, as a condition of grant approval, to submit a Privacy Certificate that is in accord with requirements of 28 C.F.R. Part 22 and, in particular, section 22.23.
- 17 The recipient agrees that funds received under this award will not be used to supplant State or local funds, but will be used to increase the amounts of such funds that would, in the absence of Federal funds, be made available for law enforcement activities.



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

**AWARD CONTINUATION
SHEET**
Grant

PAGE 5 OF 5

PROJECT NUMBER 2009 DJ BX 1445

AWARD DATE 09/04/2009

SPECIAL CONDITIONS

- 18 The grantee agrees that within 120 days of award, for any law enforcement task force funded with these funds, the task force commander, agency executive, task force officers, and other task force members of equivalent rank, will complete required online (internet-based) task force training to be provided free of charge through BJA's Center for Task Force Integrity and Leadership. This training will address task force effectiveness as well as other key issues including privacy and civil liberties/rights, task force performance measurement, personnel selection, and task force oversight and accountability. Additional information will be provided by BJA regarding the required training and access methods via BJA's web site and the Center for Task Force Integrity and Leadership (www.ctfi.org).
- 19 Recipient may not obligate, expend or drawdown funds until the Bureau of Justice Assistance, Office of Justice Programs has received and approved the signed Memorandum of Understanding (MOU) between the disparate jurisdictions and has issued a Grant Adjustment Notice (GAN) releasing this special condition.

msk



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

Washington, D.C. 20531

Memorandum To Official Grant File

From: Maria A. Berry, NEPA Coordinator

Subject: Incorporates NEPA Compliance in Further Developmental Stages for Galveston County

The Edward Byrne Memorial Justice Assistance Grant Program (JAG) allows states and local governments to support a broad range of activities to prevent and control crime and to improve the criminal justice system, some of which could have environmental impacts. All recipients of JAG funding must assist BJA in complying with NEPA and other related federal environmental impact analyses requirements in the use of grant funds, whether the funds are used directly by the grantee or by a subgrantee or third party. Accordingly, prior to obligating funds for any of the specified activities, the grantee must first determine if any of the specified activities will be funded by the grant.

The specified activities requiring environmental analysis are:

- a. New construction,
- b. Any renovation or remodeling of a property located in an environmentally or historically sensitive area, including properties located within a 100-year flood plain, a wetland, or habitat for endangered species, or a property listed on or eligible for listing on the National Register of Historic Places,
- c. A renovation, lease, or any proposed use of a building or facility that will either (a) result in a change in its basic prior use or (b) significantly change its size,
- d. Implementation of a new program involving the use of chemicals other than chemicals that are (a) purchased as an incidental component of a funded activity and (b) traditionally used, for example in office, household, recreational, or education environments, and
- e. Implementation of a program relating to clandestine methamphetamine laboratory operations, including the identification, seizure, or closure of clandestine methamphetamine laboratories.

Complying with NEPA may require the preparation of an Environmental Assessment and/or an Environmental Impact Statement, as directed by BJA. Further, for programs relating to methamphetamine laboratory operations, the preparation of a detailed Mitigation Plan will be required. For more information about Mitigation Plan requirements, please see <http://www.ojp.usdoj.gov/BJA/resource/nepa.html>

Please be sure to carefully review the grant conditions on your award document, as it may contain more specific information about environmental compliance.



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

GRANT MANAGER'S MEMORANDUM, PT. I: PROJECT SUMMARY

Grant

PROJECT NUMBER

2009-DJ-BX 1445

PAGE 1 OF 1

This project is supported under 42 U.S.C. 3751(a) (BJA - JAG formula)

1 STAFF CONTACT (Name & telephone number)

Esmeralda C. Womack
(702) 353-3450

2 PROJECT DIRECTOR (Name, address & telephone number)

Connie Nicholson
Grant Coordinator
722 Moody, Suite 317
Galveston, TX 77550-2301
(281) 534-8442

3a TITLE OF THE PROGRAM

BJA FY 09 Edward Byrne Memorial Justice Assistance Grant Program Local Solicitation

3b POMS CODE (SEE INSTRUCTIONS
ON REVERSE)

4 TITLE OF PROJECT

FY 2009 Justice Assistance Grant Program

5 NAME & ADDRESS OF GRANTEE

Galveston County
722 Moody
Galveston, TX 77550-2301

6 NAME & ADDRESS OF SUBGRANTEE

7 PROGRAM PERIOD

FROM 10/01/2008 TO 09/30/2012

8 BUDGET PERIOD

FROM 10/01/2008 TO 09/30/2012

9 AMOUNT OF AWARD

\$ 126,002

10 DATE OF AWARD

09/04/2009

11 SECOND YEAR'S BUDGET

12 SECOND YEAR'S BUDGET AMOUNT

13 THIRD YEAR'S BUDGET PERIOD

14 THIRD YEAR'S BUDGET AMOUNT

15 SUMMARY DESCRIPTION OF PROJECT (See instruction on reverse)

The Edward Byrne Memorial Justice Assistance Grant Program (JAG) allows states and units of local governments, including tribes, to support a broad range of activities to prevent and control crime based on their own state and local needs and conditions. Grant funds can be used for state and local initiatives, technical assistance, training, personnel, equipment, supplies, contractual support, and information systems for criminal justice, including for any one or more of the following purpose areas: 1) law enforcement programs; 2) prosecution and court programs; 3) prevention and education programs; 4) corrections and community corrections programs; 5) drug treatment and enforcement programs; 6) planning, evaluation, and technology improvement programs; and 7) crime victim and witness programs (other than compensation).

Galveston County and the following cities are listed as disparate jurisdictions on the Fiscal Year 2009 JAG local allocation: city of Galveston, city of La Marque, and Texas City. The county will serve as the fiscal agent to administer the JAG funds for this multi-jurisdictional project entitled: Galveston County Law

Enforcement Technology and Safety Improvement Program

The goals of this project are to prevent and/or reduce crime and violence through the use of automation, computers, and emerging technologies to expedite communication and data sharing capabilities. Galveston County will purchase in-car video systems and recording storage systems. The city of Galveston will procure computer equipment, in-car video systems, and recording storage systems. Texas City will acquire high-use computer file servers and the city of L. L. Marque will purchase police records management software licensing.

NCA/NCF

AGENDA

ITEM

#4b



Department of Justice
Office of Justice Programs

Bureau of Justice Assistance

Office of Justice Programs

Washington, DC 20531

August 13, 2009

The Honorable James Yarbrough
Galveston County
722 Moody
Galveston, TX 77550-2301

Dear Judge Yarbrough:

On behalf of Attorney General Eric Holder, it is my pleasure to inform you that the Office of Justice Programs has approved your application for funding under the FY 09 Recovery Act Edward Byrne Memorial Justice Assistance Grant Program Local Solicitation in the amount of \$623,245 for Galveston County.

Enclosed you will find the Grant Award and Special Conditions documents. This award is subject to all administrative and financial requirements, including the timely submission of all financial and programmatic reports, resolution of all interim audit findings, and the maintenance of a minimum level of cash-on-hand. Should you not adhere to these requirements, you will be in violation of the terms of this agreement and the award will be subject to termination for cause or other administrative action as appropriate.

If you have questions regarding this award, please contact:

- Program Questions, Esmeralda C. Womack, Program Manager at (202) 353-3450, and
- Financial Questions, the Office of the Chief Financial Officer, Customer Service Center (CSC) at (800) 458-0786, or you may contact the CSC at ask.ocfo@usdoj.gov

Congratulations, and we look forward to working with you.

Sincerely,

James H. Burch II
Acting Director

Enclosures



Department of Justice
Office of Justice Programs
Office for Civil Rights

Washington, D.C. 20531

August 13, 2009

The Honorable James Yarbrough
Galveston County
722 Moody
Galveston, TX 77550-2301

Dear Judge Yarbrough:

Congratulations on your recent award. In establishing financial assistance programs, Congress linked the receipt of Federal funding to compliance with Federal civil rights laws. The Office for Civil Rights (OCR), Office of Justice Programs (OJP), U.S. Department of Justice is responsible for ensuring that recipients of financial aid from OJP, its component offices and bureaus, the Office on Violence Against Women (OVW), and the Office of Community Oriented Policing Services (COPS) comply with applicable Federal civil rights statutes and regulations. We at OCR are available to help you and your organization meet the civil rights requirements that come with Justice Department funding.

Ensuring Access to Federally Assisted Programs

As you know, Federal laws prohibit recipients of financial assistance from discriminating on the basis of race, color, national origin, religion, sex, or disability in funded programs or activities, not only in respect to employment practices but also in the delivery of services or benefits. Federal law also prohibits funded programs or activities from discriminating on the basis of age in the delivery of services or benefits.

Providing Services to Limited English Proficiency (LEP) Individuals

In accordance with Department of Justice Guidance pertaining to Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d, recipients of Federal financial assistance must take reasonable steps to provide meaningful access to their programs and activities for persons with limited English proficiency (LEP). For more information on the civil rights responsibilities that recipients have in providing language services to LEP individuals, please see the website at <http://www.lep.gov>.

Ensuring Equal Treatment for Faith-Based Organizations

The Department of Justice has published a regulation specifically pertaining to the funding of faith-based organizations. In general, the regulation, Participation in Justice Department Programs by Religious Organizations, Providing for Equal Treatment of all Justice Department Program Participants, and known as the Equal Treatment Regulation 28 C.F.R. part 38, requires State Administering Agencies to treat these organizations the same as any other applicant or recipient. The regulation prohibits State Administering Agencies from making award or grant administration decisions on the basis of an organization's religious character or affiliation, religious name, or the religious composition of its board of directors.

The regulation also prohibits faith-based organizations from using financial assistance from the Department of Justice to fund inherently religious activities. While faith-based organizations can engage in non-funded inherently religious activities, they must be held separately from the Department of Justice funded program, and customers or beneficiaries cannot be compelled to participate in them. The Equal Treatment Regulation also makes clear that organizations participating in programs funded by the Department of Justice are not permitted to discriminate in the provision of services on the basis of a beneficiary's religion. For more information on the regulation, please see OCR's website at <http://www.ojp.usdoj.gov/ocr/etfbo.htm>.

State Administering Agencies and faith-based organizations should also note that the Safe Streets Act, as amended, the Victims of Crime Act, as amended, and the Juvenile Justice and Delinquency Prevention Act, as amended, contain prohibitions against discrimination on the basis of religion in employment. Despite these nondiscrimination provisions, the Justice Department has concluded that the Religious Freedom Restoration Act (RFRA) is reasonably construed, on a case-by-case basis, to require that its funding agencies permit faith-based organizations applying for funding under the applicable program statutes both to receive DOJ funds and to continue considering religion when hiring staff, even if the statute that authorizes the funding program generally forbids considering of religion in employment decisions by grantees.

Questions about the regulation or the application of RFRA to the statutes that prohibit discrimination in employment may be directed to this Office.

Enforcing Civil Rights Laws

All recipients of Federal financial assistance, regardless of the particular funding source, the amount of the grant award, or the number of employees in the workforce, are subject to the prohibitions against unlawful discrimination. Accordingly, OCR investigates recipients that are the subject of discrimination complaints from both individuals and groups. In addition, based on regulatory criteria, OCR selects a number of recipients each year for compliance reviews, audits that require recipients to submit data showing that they are providing services equitably to all segments of their service population and that their employment practices meet equal employment opportunity standards.

Complying with the Safe Streets Act or Program Requirements

In addition to these general prohibitions, an organization which is a recipient of financial assistance subject to the nondiscrimination provisions of the Omnibus Crime Control and Safe Streets Act (Safe Streets Act) of 1968, 42 U.S.C. § 3789d(e), or other Federal grant program requirements, must meet two additional requirements: (1) complying with Federal regulations pertaining to the development of an Equal Employment Opportunity Plan (EEO Plan), 28 C.F.R. § 42.301-308, and (2) submitting to OCR Findings of Discrimination (see 28 C.F.R. §§ 42.205(5) or 31.202(5)).

1) Meeting the EEO Requirement

In accordance with Federal regulations, Assurance No. 6 in the Standard Assurances, COPS Assurance No. 8 B, or certain Federal grant program requirements, your organization must comply with the following EEO reporting requirements:

If your organization has received an award for \$500,000 or more and has 50 or more employees (counting both full- and part-time employees but excluding political appointees), then it has to prepare an EEO Plan and submit it to OCR for review **within 60 days from the date of this letter**. For assistance in developing an EEO Plan, please consult OCR's website at <http://www.ojp.usdoj.gov/ocr/eoep.htm>. You may also request technical assistance from an EEO specialist at OCR by dialing (202) 616-3208.

If your organization received an award between \$25,000 and \$500,000 and has 50 or more employees, your organization still has to prepare an EEO Plan, but it does not have to submit the EEO Plan to OCR for review. Instead, your organization has to maintain the EEO Plan on file and make it available for review on request. In addition, your organization has to complete Section B of the Certification Form and return it to OCR. The Certification Form can be found at <http://www.ojp.usdoj.gov/ocr/eoep.htm>.

If your organization received an award for less than \$25,000, or if your organization has less than 50 employees, regardless of the amount of the award, or if your organization is a medical institution, educational institution, nonprofit organization or Indian tribe, then your organization is exempt from the EEO requirement. However, your organization must complete Section A of the Certification Form and return it to OCR. The Certification Form can be found at <http://www.ojp.usdoj.gov/ocr/eoep.htm>.

2) Submitting Findings of Discrimination

In the event a Federal or State court or Federal or State administrative agency makes an adverse finding of discrimination against your organization after a due process hearing, on the ground of race, color, religion, national origin, or sex, your organization must submit a copy of the finding to OCR for review.

Ensuring the Compliance of Subrecipients

If your organization makes subawards to other agencies, you are responsible for assuring that subrecipients also comply with all of the applicable Federal civil rights laws, including the requirements pertaining to developing and submitting an EEO Plan, reporting Findings of Discrimination, and providing language services to LEP persons. State agencies that make subawards must have in place standard grant assurances and review procedures to demonstrate that they are effectively monitoring the civil rights compliance of subrecipients.

If we can assist you in any way in fulfilling your civil rights responsibilities as a recipient of Federal funding, please call OCR at (202) 307-0690 or visit our website at <http://www.ojp.usdoj.gov/ocr/>.

Sincerely,



Michael L. Alston
Director

cc: Grant Manager
Financial Analyst



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

Grant

PAGE 1 OF 10

1 RECIPIENT NAME AND ADDRESS (including Zip Code)

Galveston County
732 Moody
Galveston, TX 77550-2301

4 AWARD NUMBER 2009-SB B9 3131

5 PROJECT PERIOD FROM 03/01/2009 TO 02/28/2013

BUDGET PERIOD FROM 03/01/2009 TO 02/28/2013

6 AWARD DATE 08/13/2009

7 ACTION

8 SUPPLEMENT NUMBER
00

Initial

1A GRANTEE IRS/VENDOR NO
746000909

9 PREVIOUS AWARD AMOUNT

\$ 0

3 PROJECT TITLE

FY 2009 Recovery Act Justice Assistance Grant Program

10 AMOUNT OF THIS AWARD

\$ 623,245

11 TOTAL AWARD

\$ 623,245

12 SPECIAL CONDITIONS

THE ABOVE GRANT PROJECT IS APPROVED SUBJECT TO SUCH CONDITIONS OR LIMITATIONS AS ARE SET FORTH
ON THE ATTACHED PAGE(S)

13 STATUTORY AUTHORITY FOR GRANT

This project is supported under FY09 Recovery Act (BJA Byrne JAG) Pub L No 111-5 42 USC 3750-3758

15 METHOD OF PAYMENT

PAPERS

AGENCY APPROVAL

GRANTEE ACCEPTANCE

16 TYPE/D NAME AND TITLE OF APPROVING OFFICIAL

James H. Burch II
Acting Director

18 TYPE/D NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL

James Yarbrough
County Judge

17 SIGNATURE OF APPROVING OFFICIAL

19 SIGNATURE OF AUTHORIZED RECIPIENT OFFICIAL 19A DATE

AGENCY USE ONLY

20 ACCOUNTING CLASSIFICATION CODES

FISCAL YEAR	FUND CODE	BUD ACT	OBJ	DIV RFG	SUB	POMS	AMOUNT
9	B	SB	80	00	00		623245

21 ISBUGT2880

OJP FORM 4060/2 (REV 4 87) PREVIOUS EDITIONS ARE OBSOLETE

OJP FORM 4060/2 (REV 4 88)



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

AWARD CONTINUATION
SHEET
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PROJECT NUMBER 2009 SB B9-7131

AWARD DATE 08/13/2009

SPECIAL CONDITIONS

- 1 The recipient agrees to comply with the financial and administrative requirements set forth in the current edition of the Office of Justice Programs (OJP) Financial Guide
- 2 The recipient acknowledges that failure to submit an acceptable Equal Employment Opportunity Plan (if recipient is required to submit one pursuant to 28 C.F.R. Section 42.302), that is approved by the Office for Civil Rights, is a violation of its Certified Assurances and may result in suspension or termination of funding, until such time as the recipient is in compliance
- 3 The recipient agrees to comply with the organizational audit requirements of OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations, and further understands and agrees that funds may be withheld, or other related requirements may be imposed, if outstanding audit issues (if any) from OMB Circular A-133 audits (and any other audits of OJP grant funds) are not satisfactorily and promptly addressed as further described in the current edition of the OJP Financial Guide, Chapter 19
- 4 Recipient understands and agrees that it cannot use any federal funds either directly or indirectly, in support of the enactment, repeal, modification or adoption of any law, regulation or policy, at any level of government, without the express prior written approval of OJP
- 5 The recipient must promptly refer to the DOJ OIG any credible evidence that a principal, employee, agent, contractor, subgrantee, subcontractor, or other person has either 1) submitted a false claim for grant funds under the False Claims Act or 2) committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct involving grant funds. This condition also applies to any subrecipients. Potential fraud, waste, abuse, or misconduct should be reported to the OIG by -

mail

Office of the Inspector General
U.S. Department of Justice
Investigations Division
950 Pennsylvania Avenue, N.W.
Room 4706
Washington, DC 20530

e-mail: oig Hotline@usdoj.gov

hotline (contact information in English and Spanish) (800) 869-4499

or hotline fax (202) 616-9881

Additional information is available from the DOJ OIG website at www.usdoj.gov/oig

- 6 RECOVERY ACT - Conflict with Other Standard Terms and Conditions
The recipient understands and agrees that all other terms and conditions contained in this award, or in applicable OJP grant policy statements or guidance, apply unless they conflict or are superseded by the terms and conditions included here that specifically implement the American Recovery and Reinvestment Act of 2009, Public Law 111-5 ("ARRA" or "Recovery Act") requirements. Recipients are responsible for contacting their grant managers for any needed clarifications.

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Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

**AWARD CONTINUATION
SHEET
Grant**

PAGE 3 OF 10

PROJECT NUMBER 2009 SB-B9-1131

AWARD DATE 08/13/2009

SPECIAL CONDITIONS

- 7 The grantee agrees to assist BJA in complying with the National Environmental Policy Act (NEPA), the National Historic Preservation Act, and other related federal environmental impact analyses requirements in the use of these grant funds either directly by the grantee or by a subgrantee. Accordingly, the grantee agrees to first determine if any of the following activities will be funded by the grant prior to obligating funds for any of these purposes. If it is determined that any of the following activities will be funded by the grant the grantee agrees to contact BJA

The grantee understands that this special condition applies to its following new activities whether or not they are being specifically funded with these grant funds. That is, as long as the activity is being conducted by the grantee, a subgrantee, or any third party and the activity needs to be undertaken in order to use these grant funds, this special condition must first be met. The activities covered by this special condition are:

- a. New construction,
- b. Minor renovation or remodeling of a property located in an environmentally or historically sensitive area, including properties located within a 100-year flood plain, a wetland, or habitat for endangered species or a property listed on or eligible for listing on the National Register of Historic Places,
- c. A renovation, lease, or any proposed use of a building or facility that will either (a) result in a change in its basic prior use or (b) significantly change its size,
- d. Implementation of a new program involving the use of chemicals other than chemicals that are (a) purchased as an incidental component of a funded activity and (b) traditionally used, for example, in office, household, recreational, or education environments, and
- e. Implementation of a program relating to clandestine methamphetamine laboratory operations, including the identification, seizure, or closure of clandestine methamphetamine laboratories

The grantee understands and agrees that complying with NEPA may require the preparation of an Environmental Assessment and/or an Environmental Impact Statement, as directed by BJA. The grantee further understands and agrees to the requirements for implementation of a Mitigation Plan, as detailed at [website], for programs relating to methamphetamine laboratory operations.

Application of This Special Condition to Grantee's Existing Programs or Activities. For any of the grantee's or its subgrantees' existing programs or activities that will be funded by these grant funds, the grantee, upon specific request from BJA, agrees to cooperate with BJA in any preparation by BJA of a national or program environmental assessment of that funded program or activity.

- 8 To avoid duplicating existing networks or IT systems in any initiatives funded by BJA for law enforcement information sharing systems which involve interstate connectivity between jurisdiction, such systems shall employ, to the extent possible, existing networks as the communication backbone to achieve interstate connectivity, unless the grantee can demonstrate to the satisfaction of BJA that this requirement would not be cost effective or would impair the functionality of an existing or proposed IT system.
- 9 The grantee agrees to comply with all reporting, data collection and evaluation requirements, as prescribed by law and detailed by the BJA in program guidance for the Justice Assistance Grant (JAG) Program. Compliance with these requirements will be monitored by BJA.
- 10 The recipient agrees that any information technology system funded or supported by OJP funds will comply with 28 C.F.R. Part 23 Criminal Intelligence Systems Operating Policies, if OJP determines this regulation to be applicable. Should OJP determine 28 C.F.R. Part 23 to be applicable, OJP may, at its discretion, perform audits of the system as per the regulation. Should any violation of 28 C.F.R. Part 23 occur the recipient may be fined as per 42 U.S.C. 3789g(c)-(d). Recipient may not satisfy such a fine with federal funds.



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AWARD CONTINUATION
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PROJECT NUMBER 2009 SB 09-1131

AWARD DATE 08/13/2009

SPECIAL CONDITIONS

- 11 The grantee agrees to comply with the applicable requirements of 28 C.F.R. Part 38, the Department of Justice regulation governing "Equal Treatment for Faith Based Organizations" (the "Equal Treatment Regulation"). The Equal Treatment Regulation provides in part that Department of Justice grant awards of direct funding may not be used to fund any inherently religious activities, such as worship, religious instruction, or proselytization. Recipients of direct grants may still engage in inherently religious activities, but such activities must be separate in time or place from the Department of Justice funded program, and participation in such activities by individuals receiving services from the grantee or a sub-grantee must be voluntary. The Equal Treatment Regulation also makes clear that organizations participating in programs directly funded by the Department of Justice are not permitted to discriminate in the provision of services on the basis of a beneficiary's religion. Notwithstanding any other special condition of this award, faith-based organizations may, in some circumstances, consider religion as a basis for employment. See http://www.ojp.gov/about/ocr/equal_fbo.htm
- 12 The recipient agrees to ensure that the State Information Technology Point of Contact receives written notification regarding any information technology project funded by this grant during the obligation and expenditure period. This is to facilitate communication among local and state governmental entities regarding various information technology projects being conducted with these grant funds. In addition, the recipient agrees to maintain an administrative file documenting the meeting of this requirement. For a list of State Information Technology Points of Contact, go to <http://www.it.ojp.gov/default.aspx?area=policyAndPractice&page=1046>
- 13 The recipient agrees that funds received under this award will not be used to supplant State or local funds, but will be used to increase the amounts of such funds that would, in the absence of Federal funds, be made available for law enforcement activities.
- 14 **RECOVERY ACT - JAG - Trust Fund**
The recipient is required to establish a trust fund account. (The trust fund may or may not be an interest-bearing account.) The fund, including any interest, may not be used to pay debts or expenses incurred by other activities beyond the scope of either the Edward Byrne Memorial Justice Assistance Grant Program (JAG) or Recovery JAG Program. The recipient also agrees to obligate and expend the grant funds in the trust fund (including any interest earned) during the period of the grant. Grant funds (including any interest earned) not expended by the end of the grant period must be returned to the Bureau of Justice Assistance no later than 90 days after the end of the grant period, along with the final submission of the Financial Status Report (SF-269).
- 15 **RECOVERY ACT - Access to Records, Interviews**
The recipient understands and agrees that DOJ (including OJP and the Office of the Inspector General (OIG)) and its representatives, and the Government Accountability Office (GAO), shall have access to and the right to examine all records (including, but not limited to, books, papers, and documents) related to this Recovery Act award, including such records of any subrecipient, contractor, or subcontractor.

The recipient also understands and agrees that DOJ and the GAO are authorized to interview any officer or employee of the recipient (or of any subrecipient, contractor or subcontractor) regarding transactions related to this Recovery Act award.
- 16 **RECOVERY ACT - One-time funding**
The recipient understands and agrees that awards under the Recovery Act will be one-time awards and accordingly that its proposed project activities and deliverables are to be accomplished without additional DOJ funding.



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

AWARD CONTINUATION
SHEET
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PROJECT NUMBER 2009 SB H9-313

AWARD DATE 08/13/2009

SPECIAL CONDITIONS

- 17 RECOVERY ACT - Separate Tracking and Reporting of Recovery Act Funds and Outcomes
The recipient agrees to track account for, and report on all funds from this Recovery Act award (including specific outcomes and benefits attributable to Recovery Act funds) separately from all other funds, including DOJ award funds from non-Recovery Act awards awarded for the same or similar purposes or programs. (Recovery Act funds may be used in conjunction with other funding as necessary to complete projects, but tracking and reporting of Recovery Act funds must be separate.)

Accordingly, the accounting systems of the recipient and all subrecipients must ensure that funds from this Recovery Act award are not commingled with funds from any other source.

The recipient further agrees that all personnel (including subrecipient personnel) whose activities are to be charged to the award will maintain timesheets to document hours worked for activities related to this award and non-award-related activities.

- 18 RECOVERY ACT - Subawards - Monitoring
The recipient agrees to monitor subawards under this Recovery Act award in accordance with all applicable statutes, regulations, OMB circulars, and guidelines including the OJP Financial Guide, and to include the applicable conditions of this award in any subaward. The recipient is responsible for oversight of subrecipient spending and monitoring of specific outcomes and benefits attributable to use of Recovery Act funds by subrecipients. The recipient agrees to submit upon request, documentation of its policies and procedures for monitoring of subawards under this award.
- 19 RECOVERY ACT - Subawards - DUNS and CCR for Reporting
The recipient agrees to work with its first-tier subrecipients (if any) to ensure that, no later than the due date of the recipient's first quarterly report after a subaward is made, the subrecipient has a valid DUNS profile and has an active registration with the Central Contractor Registration (CCR) database.
- 20 RECOVERY ACT - Quarterly Financial Reports
The recipient agrees to submit quarterly financial status reports to OJP. At present, these reports are to be submitted on-line (at <https://grants.ojp.usdoj.gov>) using Standard Form SF 269A, not later than 45 days after the end of each calendar quarter. The recipient understands that after October 15, 2009, OJP will discontinue its use of the SF 269A, and will require award recipients to submit quarterly financial status reports within 30 days after the end of each calendar quarter, using the government-wide Standard Form 425 Federal Financial Report form (available for viewing at www.whitehouse.gov/omb/grants/standard_forms/ffr.pdf). Beginning with the report for the fourth calendar quarter of 2009 (and continuing thereafter), the recipient agrees that it will submit quarterly financial status reports to OJP on-line (at <https://grants.ojp.usdoj.gov>) using the SF 425 Federal Financial Report form, not later than 30 days after the end of each calendar quarter. The final report shall be submitted not later than 90 days following the end of the grant period.



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AWARD CONTINUATION
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PROJECT NUMBER 2009-SB-B9-3151

AWARD DATE 08/13/2009

SPECIAL CONDITIONS

21 RECOVERY ACT - Recovery Act Transactions Listed in Schedule of Expenditures of Federal Awards and Recipient Responsibilities for Informing Subrecipients

(a) The recipient agrees to maintain records that identify adequately the source and application of Recovery Act funds, to maximize the transparency and accountability of funds authorized under the Recovery Act as required by the Act and in accordance with 2 CFR 215.21, "Uniform Administrative Requirements for Grants and Agreements with Institutions of Higher Education, Hospitals, and Other Non-profit Organizations" and OMB A-102 Common Rules provisions (relating to Grants and Cooperative Agreements with State and Local Governments)

(b) The recipient agrees to separately identify the expenditures for Federal awards under the Recovery Act on the Schedule of Expenditures of Federal Awards (SEFA) and the Data Collection Form (SF-SAC) required by OMB Circular A-133. This condition only applies if the recipient is covered by the Single Audit Act Amendments of 1996 and OMB Circular A-133 "Audits of States, Local Governments, and Non-Profit Organizations." This shall be accomplished by identifying expenditures for Federal awards made under the Recovery Act separately on the SEFA, and as separate rows under Item 9 of Part III on the SF-SAC by CFDA number, and inclusion of the prefix "ARRA-" in identifying the name of the Federal program on the SEFA and as the first characters in Item 9d of Part III on the SF-SAC.

(c) The recipient agrees to separately identify to each subrecipient the Federal award number, CFDA number, and amount of Recovery Act funds, and to document this identification both at the time of subaward and at the time of disbursement of funds. When a recipient awards Recovery Act funds for an existing program, the information furnished to subrecipients shall distinguish the subawards of incremental Recovery Act funds from regular subawards under the existing program.

(d) The recipient agrees to require its subrecipients to specifically identify Recovery Act funding on their SEI A information, similar to the requirements for the recipient SEFA described above. This information is needed to allow the recipient to properly monitor subrecipient expenditure of Recovery Act funds as well as facilitate oversight by the Federal awarding agencies, the DOJ OIG, and the GAO.

22 RECOVERY ACT - Reporting and Registration Requirements under Section 1512 of the Recovery Act

(a) This award requires the recipient to complete projects or activities which are funded under the Recovery Act and to report on use of Recovery Act funds provided through this award. Information from these reports will be made available to the public.

(b) The reports are due no later than ten calendar days after each calendar quarter in which the recipient receives the assistance award funded in whole or in part by the Recovery Act.

(c) Recipients and their first-tier recipients must maintain current registrations in the Central Contractor Registration (www.ccr.gov) at all times during which they have active federal awards funded with Recovery Act funds. A Dun and Bradstreet Data Universal Numbering System (DUNS) Number (www.dnb.com) is one of the requirements for registration in the Central Contractor Registration.

(d) The recipient shall report the information described in section 1512(c) of the Recovery Act using the reporting instructions and data elements that will be provided online at www.FederalReporting.gov and ensure that any information that is pre-filled is corrected or updated as needed.

Handwritten signature/initials



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Office of Justice Programs
Bureau of Justice Assistance

AWARD CONTINUATION
SHEET
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PROJECT NUMBER 2009-SB H9-1131

AWARD DATE 08/13/2009

SPECIAL CONDITIONS

23 RECOVERY ACT - Provisions of Section 1512(c)

The recipient understands that section 1512(c) of the Recovery Act provides as follows

Recipient Reports- Not later than 10 days after the end of each calendar quarter, each recipient that received recovery funds from a Federal agency shall submit a report to that agency that contains--

- (1) the total amount of recovery funds received from that agency,
- (2) the amount of recovery funds received that were expended or obligated to projects or activities, and
- (3) a detailed list of all projects or activities for which recovery funds were expended or obligated, including--
 - (A) the name of the project or activity,
 - (B) a description of the project or activity,
 - (C) an evaluation of the completion status of the project or activity,
 - (D) an estimate of the number of jobs created and the number of jobs retained by the project or activity, and
 - (E) for infrastructure investments made by state and local governments, the purpose, total cost, and rationale of the agency for funding the infrastructure investment with funds made available under this Act, and name of the person to contact at the agency if there are concerns with the infrastructure investment
- (4) Detailed information on any subcontracts or subgrants awarded by the recipient to include the data elements required to comply with the Federal Funding Accountability and Transparency Act of 2006 (Public Law 109-282), allowing aggregate reporting on awards below \$25,000 or to individuals, as prescribed by the Director of the Office of Management and Budget

24 RECOVERY ACT - Protecting State and Local Government and Contractor Whistleblowers (Recovery Act, section 1553)

The recipient recognizes that the Recovery Act provides certain protections against reprisals for employees of non-Federal employers who disclose information reasonably believed to be evidence of gross management, gross waste, substantial and specific danger to public health or safety, abuse of authority, or violations of law related to contracts or grants using Recovery Act funds. For additional information, refer to section 1553 of the Recovery Act. The text of Recovery Act is available at www.ojp.usdoj.gov/recovery

25 RECOVERY ACT - Limit on Funds (Recovery Act, section 1604)

The recipient agrees that none of the funds under this award may be used by any State or local government, or any private entity, for construction costs or any other support of any casino or other gambling establishment, aquarium, zoo, golf course, or swimming pool

26 RECOVERY ACT - Infrastructure Investment (Recovery Act, sections 1511 and 1602)

The recipient agrees that it may not use any funds made available under this Recovery Act award for infrastructure investment absent submission of a satisfactory certification under section 1511 of the Recovery Act. Should the recipient decide to use funds for infrastructure investment subsequent to award, the recipient must submit appropriate certifications under section 1511 of the Recovery Act and receive prior approval from OJP. In seeking such approval, the recipient shall give preference to activities that can be started and completed expeditiously, and shall use award funds in a manner that maximizes job creation and economic benefits. The text of the Recovery Act (including sections 1511 and 1602) is available at www.ojp.usdoj.gov/recovery



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AWARD CONTINUATION
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PROJECT NUMBER 2009-SB-B9-3131

AWARD DATE 08/13/2009

SPECIAL CONDITIONS

27 RECOVERY ACT Buy American Notification (Recovery Act, section 1605)

The recipient understands that this award is subject to the provisions of section 1605 of the Recovery Act ("Buy American"). No award funds may be used for iron, steel, or manufactured goods for a project for the construction, alteration, maintenance, or repair of a public building or public work unless the recipient provides advance written notification to the OJP program office, and a Grant Adjustment Notice is issued that modifies this special condition to add government-wide standard conditions (anticipated to be published in subpart B of 2 C.F.R. part 176) that further implement the specific requirements or exceptions of section 1605.

Section 1605 of the Recovery Act prohibits use of any Recovery Act funds for a project for the construction, alteration, maintenance, or repair of a public building or public work unless all of the iron, steel, and manufactured goods used in the project are produced in the United States, subject to certain exceptions, including United States obligations under international agreements.

For purposes of this special condition the following definitions apply:

"Public building" and "public work" means a public building of and a public work of, a governmental entity (the United States, the District of Columbia, commonwealths, territories, and minor outlying islands of the United States, State and local governments, and multi-State, regional, or interstate entities which have governmental functions). These buildings and works may include, without limitation, bridges, dams, plants, highways, parkways, streets, subways, tunnels, sewers, mains, power lines, pumping stations, heavy generators, railways, airports, terminals, docks, piers, wharves, ways, lighthouses, buoys, jetties, breakwaters, levees, and canals, and the construction, alteration, maintenance, or repair of such buildings and works.

"Manufactured good" means a good brought to the construction site for incorporation into the building or work that has been--

- (1) Processed into a specific form and shape, or
- (2) Combined with other raw material to create a material that has different properties than the properties of the individual raw materials.

"Steel" means an alloy that includes at least 50 percent iron, between .02 and 2 percent carbon, and may include other elements.

For purposes of OJP grants, projects involving construction, alteration, maintenance, or repair of jails, detention facilities, prisons, public crime victims' shelters, police facilities, or other similar projects will likely trigger this provision.

NOTE: The recipient is encouraged to contact the OJP program manager - in advance - with any questions concerning this condition, including its applicability to particular circumstances.

MAP



Department of Justice
Office of Justice Programs
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AWARD CONTINUATION
SHEET
Grant

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PROJECT NUMBER 2009 SB-BJ 331

AWARD DATE 08/13/2009

SPECIAL CONDITIONS

28. **RECOVERY ACT - Wage Rate Requirements under Section 1606 of the Recovery Act**
(a) Section 1606 of the Recovery Act requires that all laborers and mechanics employed by contractors and subcontractors on projects funded directly by or assisted in whole or in part by and through the Federal Government pursuant to the Recovery Act shall be paid wages at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor in accordance with subchapter IV of chapter 31 of title 40, United States Code.
- Pursuant to Reorganization Plan No. 14 and the Copeland Act, 40 U.S.C. 3145, the Department of Labor has issued regulations at 29 CFR Parts 1, 3, and 5 to implement the Davis-Bacon and related Acts. Regulations in 29 CFR 5.5 instruct agencies concerning application of the standard Davis-Bacon contract clauses set forth in that section. The standard Davis-Bacon contract clauses found in 29 CFR 5.5(a) are to be incorporated in any covered contracts made under this award that are in excess of \$2,000 for construction, alteration or repair (including painting and decorating).
- (b) For additional guidance on the wage rate requirements of section 1606, contact your awarding agency. Recipients of grants, cooperative agreements and loans should direct their initial inquiries concerning the application of Davis-Bacon requirements to a particular federally assisted project to the Federal agency funding the project. The Secretary of Labor retains final coverage authority under Reorganization Plan Number 14.
29. **RECOVERY ACT - NEPA and Related Laws**
The recipient understands that all OJP awards are subject to the National Environmental Policy Act (NEPA, 42 U.S.C. section 4321 et seq.) and other related Federal laws (including the National Historic Preservation Act), if applicable. The recipient agrees to assist OJP in carrying out its responsibilities under NEPA and related laws, if the recipient plans to use Recovery Act funds (directly or through subaward or contract) to undertake any activity that triggers these requirements, such as renovation or construction. (See 29 C.F.R. Part 61, App. D.) The recipient also agrees to comply with all Federal, State, and local environmental laws and regulations applicable to the development and implementation of the activities to be funded under this award.
30. **RECOVERY ACT - Misuse of award funds**
The recipient understands and agrees that misuse of award funds may result in a range of penalties, including suspension of current and future funds, suspension or debarment from federal grants, recoupment of monies provided under an award, and civil and/or criminal penalties.
31. **RECOVERY ACT - Additional Requirements and Guidance**
The recipient agrees to comply with any modifications or additional requirements that may be imposed by law and future OJP (including government-wide) guidance and clarifications of Recovery Act requirements.
32. **RECOVERY ACT - IAG - Delinquent section 1512(c) reports**
The recipient acknowledges that it has certified that it will comply with all reporting requirements under section 1512(c) of the Recovery Act. (An online reporting mechanism is anticipated to be available for award recipient use by October 10, 2009.) Further to this certification, a failure to comply with the section 1512(c) reporting requirements may, in addition to other penalties, subject the recipient to the following:
(1) After failure to report section 1512(c) data for two consecutive reporting periods, the recipient may be: (a) precluded from drawing down funds under any OJP award, and/or (b) deemed ineligible for future discretionary OJP awards, until such time as the recipient becomes current in its section 1512(c) reporting obligations, and
(2) After failure to report section 1512(c) data for three consecutive reporting periods, the recipient, upon written demand of the Director of BJA, shall return to OJP any unexpended award funds (including any unexpended interest earned on award funds) within 15 calendar days of the date of the demand notice. Thereafter, the recipient's award shall be converted to a cost-reimbursable grant until such time as the recipient becomes current in its section 1512(c) reporting obligations, and remains current for not less than two additional consecutive reporting periods.



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

**AWARD CONTINUATION
SHEET
Grant**

PAGE 10 OF 10

PROJECT NUMBER 2009-SB-B9-3131

AWARD DATE 08/13/2009

SPECIAL CONDITIONS

- 33 Recipient may not obligate, expend or drawdown funds until the Bureau of Justice Assistance, Office of Justice Programs has received and approved the signed Memorandum of Understanding (MOU) between the disparate jurisdictions and has issued a Grant Adjustment Notice (GAN) releasing this special condition



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

Washington, D.C. 20531

Memorandum To Official Grant File

From: Maria A. Berry, NEPA Coordinator

Subject: Incorporates NEPA Compliance in Further Developmental Stages for Galveston County

The Recovery Act emphasizes the importance of compliance with the National Environmental Policy Act (NEPA) in the use of public funds. The Recovery Act - Edward Byrne Memorial Justice Assistance Grant Program (IAG) allows states and local governments to support a broad range of activities to prevent and control crime and to improve the criminal justice system, some of which could have environmental impacts. All recipients of IAG funding must assist BJA in complying with NEPA and other related federal environmental impact analyses requirements in the use of grant funds, whether the funds are used directly by the grantee or by a subgrantee or third party. Accordingly, prior to obligating funds for any of the specified activities, the grantee must first determine if any of the specified activities will be funded by the grant.

The specified activities requiring environmental analysis are

- a. New construction,
- b. Any renovation or remodeling of a property located in an environmentally or historically sensitive area, including properties located within a 100-year flood plain, a wetland, or habitat for endangered species, or a property listed on or eligible for listing on the National Register of Historic Places,
- c. A renovation, lease, or any proposed use of a building or facility that will either (a) result in a change in its basic prior use or (b) significantly change its size,
- d. Implementation of a new program involving the use of chemicals other than chemicals that are (a) purchased as an incidental component of a funded activity and (b) traditionally used, for example, in office, household, recreational, or education environments, and
- e. Implementation of a program relating to clandestine methamphetamine laboratory operations, including the identification, seizure, or closure of clandestine methamphetamine laboratories.

Complying with NEPA may require the preparation of an Environmental Assessment and/or an Environmental Impact Statement, as directed by BJA. Further, for programs relating to methamphetamine laboratory operations, the preparation of a detailed Mitigation Plan will be required. For more information about Mitigation Plan requirements,

please see <http://www.ojp.usdoj.gov/BJA/resource/nepa.html>

Please be sure to carefully review the grant conditions on your award document, as it may contain more specific information about environmental compliance



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

GRANT MANAGER'S MEMORANDUM, PT. I:
PROJECT SUMMARY

Grant

PROJECT NUMBER

2009-SB 119 3131

PAGE 1 OF 1

This project is supported under FY09 Recovery Act (BJA Bymc JAG) Pub L No 111-5 42 USC 3750-3758

1 STAFF CONTACT (Name & telephone number)

Emeralda C. Womack
(202) 353-3450

2 PROJECT DIRECTOR (Name, address & telephone number)

Coame Nicholson
Grants Coordinator
722 Moody
Suite 317
Galveston TX 77550-2301
(281) 514 8442

3a TITLE OF THE PROGRAM

BJA FY 09 Recovery Act Edward Byrne Memorial Justice Assistance Grant Program Local Solicitation

3b POMS CODE (SEE INSTRUCTIONS
ON REVERSE)

4 TITLE OF PROJECT

FY 2009 Recovery Act Justice Assistance Grant Program

5 NAME & ADDRESS OF GRANTEE

Galveston County
722 Moody
Galveston TX 77550 2301

6 NAME & ADDRESS OF SUBGRANTEE

7 PROGRAM PERIOD

FROM 03/01/2009 TO 02/28/2013

8 BUDGET PERIOD

FROM 03/01/2009 TO 02/28/2013

9 AMOUNT OF AWARD

\$ 623,245

10 DATE OF AWARD

08/13/2009

11 SECOND YEAR'S BUDGET

12 SECOND YEAR'S BUDGET AMOUNT

13 THIRD YEAR'S BUDGET PERIOD

14 THIRD YEAR'S BUDGET AMOUNT

15 SUMMARY DESCRIPTION OF PROJECT (See instruction on reverse)

This grant program is authorized by the American Recovery and Reinvestment Act of 2009 (Public Law 111-5) (the "Recovery Act") and by 42 U.S.C. 3751(a). The stated purposes of the Recovery Act are: to preserve and create jobs and promote economic recovery; to assist those most impacted by the recession; to provide investments needed to increase economic efficiency by spurring technological advances in science and health; to invest in transportation, environmental protection, and other infrastructure that will provide long-term economic benefits; and to stabilize state and local government budgets, in order to minimize and avoid reductions in essential services and counterproductive state and local tax increases. The Recovery Act places great emphasis on accountability and transparency in the use of taxpayer dollars.

Among other things, it creates a new Recovery Accountability and Transparency Board and a new website, Recovery.gov, to provide information to the public, including access to detailed information on grants and contracts made with Recovery Act funds.

The Justice Assistance Grant (JAG) Program funded under the Recovery Act is the primary provider of federal criminal justice funding to state and local jurisdictions. Recovery JAG funds support all components of the criminal justice system, from multi-jurisdictional drug and gang task forces to crime prevention and domestic violence programs, courts, corrections, treatment, and justice information sharing initiatives. Recovery JAGs funded projects may address crime through the provision of services directly to individuals and/or communities and by improving the effectiveness and efficiency of criminal justice systems, processes, and procedures.

Christeson County, serving as the fiscal agent for this award, will share the Recovery Act JAG funding with eight jurisdictions within the county. In a disparate situation such as this, the units of local government must apply for an award with a single joint application. Each jurisdiction's allocation will be used for activities and projects that will provide meaningful and measurable outcomes consistent with the goals of the Recovery Act to include the purchase of the following essential equipment: a computerized multi-agency criminal intelligence system, a multi-use mobile command post/SWAT command vehicle, a high profile multi-use SUV for situations involving high water operations, a multi-purpose rescue/recovery boat for flood operations and water borne patrols, in-car video systems and recording storage systems, lasers, firearms, computers and associated accessories, emergency lighting equipment, an antenna system, records management software, and a personnel scheduling and deployment system.

NC A/NCF

AGENDA

ITEM

#4c



Department of Justice
Office of Justice Programs

Bureau of Justice Assistance

Office of Justice Programs

Washington, DC 20531

August 23, 2010

The Honorable James Yarbrough
Galveston County
722 Moody
Galveston, TX 77550-2301

Dear Judge Yarbrough

On behalf of Attorney General Eric Holder, it is my pleasure to inform you that the Office of Justice Programs has approved your application for funding under the FY 10 Edward Byrne Memorial Justice Assistance Grant (JAG) Program Local Solicitation in the amount of \$101,450 for Galveston County.

Enclosed you will find the Grant Award and Special Conditions documents. This award is subject to all administrative and financial requirements, including the timely submission of all financial and programmatic reports, resolution of all interim audit findings, and the maintenance of a minimum level of cash-on-hand. Should you not adhere to these requirements, you will be in violation of the terms of this agreement and the award will be subject to termination for cause or other administrative action as appropriate.

If you have questions regarding this award, please contact:

- Program Questions: Carrie Booth, Program Manager at (202) 305-7426, and
- Financial Questions, the Office of the Chief Financial Officer, Customer Service Center (CSC) at (800) 458-0786, or you may contact the CSC at ask_octo@usdoj.gov.

Congratulations, and we look forward to working with you.

Sincerely,

James H. Burch II
Acting Director

Enclosures



Department of Justice
Office of Justice Programs
Office for Civil Rights

Washington, D.C. 20531

August 23, 2010

The Honorable James Yarbrough
Galveston County
722 Moody
Galveston, TX 77550-2301

Dear Judge Yarbrough:

Congratulations on your recent award. In establishing financial assistance programs, Congress linked the receipt of Federal funding to compliance with Federal civil rights laws. The Office for Civil Rights (OCR), Office of Justice Programs (OJP), U.S. Department of Justice is responsible for ensuring that recipients of financial aid from OJP—its component offices and bureaus, the Office on Violence Against Women (OVW), and the Office of Community Oriented Policing Services (COPS)—comply with applicable Federal civil rights statutes and regulations. We at OCR are available to help you and your organization meet the civil rights requirements that come with Justice Department funding.

Ensuring Access to Federally Assisted Programs

As you know, Federal laws prohibit recipients of financial assistance from discriminating on the basis of race, color, national origin, religion, sex, or disability in funded programs or activities, not only in respect to employment practices but also in the delivery of services or benefits. Federal law also prohibits funded programs or activities from discriminating on the basis of age in the delivery of services or benefits.

Providing Services to Limited English Proficiency (LEP) Individuals

In accordance with Department of Justice Guidance pertaining to Title VI of the Civil Rights Act of 1964, 42 U.S.C. § 2000d, recipients of Federal financial assistance must take reasonable steps to provide meaningful access to their programs and activities for persons with limited English proficiency (LEP). For more information on the civil rights responsibilities that recipients have in providing language services to LEP individuals, please see the website at <http://www.lep.gov>.

Ensuring Equal Treatment for Faith-Based Organizations

The Department of Justice has published a regulation specifically pertaining to the funding of faith-based organizations. In general, the regulation, Participation in Justice Department Programs by Religious Organizations, Providing for Equal Treatment of all Justice Department Program Participants, and known as the Equal Treatment Regulation 28 C.F.R. part 38, requires State Administering Agencies to treat these organizations the same as any other applicant or recipient. The regulation prohibits State Administering Agencies from making award or grant administration decisions on the basis of an organization's religious character or affiliation, religious name, or the religious composition of its board of directors.

The regulation also prohibits faith-based organizations from using financial assistance from the Department of Justice to fund inherently religious activities. While faith-based organizations can engage in non-funded inherently religious activities, they must be held separately from the Department of Justice funded program, and customers or beneficiaries cannot be compelled to participate in them. The Equal Treatment Regulation also makes clear that organizations participating in programs funded by the Department of Justice are not permitted to discriminate in the provision of services on the basis of a beneficiary's religion. For more information on the regulation, please see OCR's website at <http://www.ojp.usdoj.gov/ocr/etfbo.htm>.

State Administering Agencies and faith-based organizations should also note that the Safe Streets Act, as amended, the Victims of Crime Act, as amended, and the Juvenile Justice and Delinquency Prevention Act, as amended, contain prohibitions against discrimination on the basis of religion in employment. Despite these nondiscrimination provisions, the Justice Department has concluded that the Religious Freedom Restoration Act (RFRA) is reasonably construed, on a case-by-case basis, to require that its funding agencies permit faith-based organizations applying for funding under the applicable program statutes both to receive DOJ funds and to continue considering religion when hiring staff, even if the statute that authorizes the funding program generally forbids considering of religion in employment decisions by grantees.

Questions about the regulation or the application of RFRA to the statutes that prohibit discrimination in employment may be directed to this Office.

Enforcing Civil Rights Laws

All recipients of Federal financial assistance, regardless of the particular funding source, the amount of the grant award or the number of employees in the workforce, are subject to the prohibitions against unlawful discrimination. Accordingly, OCR investigates recipients that are the subject of discrimination complaints from both individuals and groups. In addition, based on regulatory criteria, OCR selects a number of recipients each year for compliance reviews, audits that require recipients to submit data showing that they are providing services equitably to all segments of their service population and that their employment practices meet equal employment opportunity standards.

Complying with the Safe Streets Act or Program Requirements

In addition to these general prohibitions, an organization which is a recipient of financial assistance subject to the nondiscrimination provisions of the Omnibus Crime Control and Safe Streets Act (Safe Streets Act) of 1968, 42 U.S.C. § 3789d(c), or other Federal grant program requirements, must meet two additional requirements: (1) complying with Federal regulations pertaining to the development of an Equal Employment Opportunity Plan (EEO Plan), 28 C.F.R. § 42.301-308, and (2) submitting to OCR Findings of Discrimination (see 28 C.F.R. §§ 42.205(5) or 31.202(5)).

1) Meeting the EEO Requirement

In accordance with Federal regulations: Assurance No. 6 in the Standard Assurances, COPS Assurance No. 8 B, or certain Federal grant program requirements, your organization must comply with the following EEO reporting requirements:

If your organization has received an award for \$500,000 or more and has 50 or more employees (counting both full- and part-time employees but excluding political appointees), then it has to prepare an EEO Plan and submit it to OCR for review **within 60 days from the date of this letter**. For assistance in developing an EEO Plan, please consult OCR's website at <http://www.ojp.usdoj.gov/ocr/eoep.htm>. You may also request technical assistance from an EEO specialist at OCR by dialing (202) 616-3208.

If your organization received an award between \$25,000 and \$500,000 and has 50 or more employees, your organization still has to prepare an EEO Plan, but it does not have to submit the EEO Plan to OCR for review. Instead, your organization has to maintain the EEO Plan on file and make it available for review on request. In addition, your organization has to complete Section B of the Certification Form and return it to OCR. The Certification Form can be found at <http://www.ojp.usdoj.gov/ocr/eoep.htm>.

If your organization received an award for less than \$25,000, or if your organization has less than 50 employees, regardless of the amount of the award or if your organization is a medical institution, educational institution, nonprofit organization or Indian tribe, then your organization is exempt from the EEO requirement. However, your organization must complete Section A of the Certification Form and return it to OCR. The Certification Form can be found at <http://www.ojp.usdoj.gov/ocr/eoep.htm>.

2) Submitting Findings of Discrimination

In the event a Federal or State court or Federal or State administrative agency makes an adverse finding of discrimination against your organization after a due process hearing, on the ground of race, color, religion, national origin, or sex, your organization must submit a copy of the finding to OCR for review.

Ensuring the Compliance of Subrecipients

If your organization makes subawards to other agencies, you are responsible for assuring that subrecipients also comply with all of the applicable Federal civil rights laws, including the requirements pertaining to developing and submitting an EEO Plan, reporting Findings of Discrimination, and providing language services to LEP persons. State agencies that make subawards must have in place standard grant assurances and review procedures to demonstrate that they are effectively monitoring the civil rights compliance of subrecipients.

If we can assist you in any way in fulfilling your civil rights responsibilities as a recipient of Federal funding, please call OCR at (202) 307-0690 or visit our website at <http://www.ojp.usdoj.gov/ocr/>.

Sincerely,



Michael L. Alston
Director

cc Grant Manager
Financial Analyst



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

Grant

PAGE 1 OF 5

1 RECIPIENT NAME AND ADDRESS (including Zip Code)

Galveston County
722 Moody
Galveston, TX 77550-2301

4 AWARD NUMBER 2010-DJ-OA-1110

5 PROJECT PERIOD FROM 10/01/2009 TO 09/30/2013

BUDGET PERIOD FROM 10/01/2009 TO 09/30/2013

6 AWARD DATE 08/23/2010

7 ACTION

14 GRANTEE IRS/VENDOR NO

746101909

8 SUPPLEMENT NUMBER

00

Initial

9 PREVIOUS AWARD AMOUNT

\$ 0

3 PROJECT TITLE

Galveston County Law Enforcement Technology and Safety Improvement Program

10 AMOUNT OF THIS AWARD

\$ 101,450

11 TOTAL AWARD

\$ 101,450

12 SPECIAL CONDITIONS

THE ABOVE GRANT PROJECT IS APPROVED SUBJECT TO SUCH CONDITIONS OR LIMITATIONS AS ARE SET FORTH ON THE ATTACHED PAGE(S)

13 STATUTORY AUTHORITY FOR GRANT

This project is supported under FY10 (HJA - JAG) 42 USC 3750 et seq

15 METHOD OF PAYMENT

GPRS

AGENCY APPROVAL

GRANTEE ACCEPTANCE

16 TYPE D NAME AND TITLE OF APPROVING OFFICIAL

James H. Burch II
Acting Director

18 TYPE D NAME AND TITLE OF AUTHORIZED GRANTEE OFFICIAL

James Yarbrough
Judge

17 SIGNATURE OF APPROVING OFFICIAL

19 SIGNATURE OF AUTHORIZED RECIPIENT OFFICIAL

19A DATE

AGENCY USE ONLY

20 ACCOUNTING CLASSIFICATION CODES

FISCAL YEAR	FUND CODE	BUD ACT	OFC	DIV REG	SUB	POMS	AMOUNT
A	B	DJ	80	00	90		101450

21 JJJUGT1907

OJP FORM 4000/2 (REV 5-87) PREVIOUS EDITIONS ARE OBSOLETE

OJP FORM 4000/2 (REV 4-88)



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

AWARD CONTINUATION
SHEET
Grant

PAGE 2 OF 3

PROJECT NUMBER 2010-DJ-BX-1310

AWARD DATE 08/23/2010

SPECIAL CONDITIONS

- 1 The recipient agrees to comply with the financial and administrative requirements set forth in the current edition of the Office of Justice Programs (OJP) Financial Guide
- 2 The recipient acknowledges that failure to submit an acceptable Equal Employment Opportunity Plan (if recipient is required to submit one pursuant to 28 C.F.R. Section 42.302), that is approved by the Office for Civil Rights, is a violation of its Certified Assurances and may result in suspension or termination of funding, until such time as the recipient is in compliance
- 3 The recipient agrees to comply with the organizational audit requirements of OMB Circular A-133, Audits of States, Local Governments, and Non-Profit Organizations, and further understands and agrees that funds may be withheld, or other related requirements may be imposed, if outstanding audit issues (if any) from OMB Circular A-133 audits (and any other audits of OJP grant funds) are not satisfactorily and promptly addressed as further described in the current edition of the OJP Financial Guide, Chapter 19
- 4 Recipient understands and agrees that it cannot use any federal funds, either directly or indirectly, in support of the enactment, repeal, modification or adoption of any law, regulation or policy, at any level of government, without the express prior written approval of OJP
- 5 The recipient must promptly refer to the DOJ OIG any credible evidence that a principal, employee, agent, contractor, subgrantee, subcontractor, or other person has either 1) submitted a false claim for grant funds under the False Claims Act, or 2) committed a criminal or civil violation of laws pertaining to fraud, conflict of interest, bribery, gratuity, or similar misconduct involving grant funds. This condition also applies to any subrecipients. Potential fraud, waste, abuse, or misconduct should be reported to the OIG by -

mail

Office of the Inspector General
U.S. Department of Justice
Investigations Division
950 Pennsylvania Avenue, N.W.
Room 4706
Washington, DC 20530

e-mail: oirg.hotline@usdoj.gov

hotline (contact information in English and Spanish) (800) 869-4499

or hotline fax: (202) 616-9881

Additional information is available from the DOJ OIG website at www.usdoj.gov/oig

- 6 Recipient understands and agrees that it cannot use any federal funds, either directly or indirectly, in support of any contract or subaward to either the Association of Community Organizations for Reform Now (ACORN) or its subsidiaries, without the express prior written approval of OJP
- 7 The recipient agrees to comply with any additional requirements that may be imposed during the grant performance period if the agency determines that the recipient is a high-risk grantee. Cf. 28 C.F.R. parts 66, 70

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Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

AWARD CONTINUATION
SHEET
Grant

PAGE 3 OF 5

PROJECT NUMBER 2010 DJ BX 1310

AWARD DATE 08/23/2010

SPECIAL CONDITIONS

- 8 To support public safety and justice information sharing, OJP requires the grantee to use the National Information Exchange Model (NIEM) specifications and guidelines for this particular grant. Grantee shall publish and make available without restriction all schemas generated as a result of this grant to the component registry as specified in the guidelines. For more information on compliance with this special condition, visit <http://www niem gov/implementationguide php>
- 9 To avoid duplicating existing networks or IT systems in any initiatives funded by BJA for law enforcement information sharing systems which involve interstate connectivity between jurisdiction, such systems shall employ, to the extent possible, existing networks as the communication backbone to achieve interstate connectivity unless the grantee can demonstrate to the satisfaction of BJA that this requirement would not be cost effective or would impair the functionality of an existing or proposed IT system
- 10 The grantee agrees to comply with the applicable requirements of 28 C.F.R. Part 38, the Department of Justice regulation governing "Equal Treatment for Faith Based Organizations" (the "Equal Treatment Regulation"). The Equal Treatment Regulation provides in part that Department of Justice grant awards of direct funding may not be used to fund any inherently religious activities, such as worship, religious instruction, or proselytization. Recipients of direct grants may still engage in inherently religious activities, but such activities must be separate in time or place from the Department of Justice funded program, and participation in such activities by individuals receiving services from the grantee or a sub-grantee must be voluntary. The Equal Treatment Regulation also makes clear that organizations participating in programs directly funded by the Department of Justice are not permitted to discriminate in the provision of services on the basis of a beneficiary's religion. Notwithstanding any other special condition of this award, faith-based organizations may, in some circumstances, consider religion as a basis for employment. See http://www ojp gov/about/ocr/equal_fbo htm
- 11 The recipient acknowledges that all programs funded through subawards, whether at the state or local levels must conform to the grant program requirements as stated in BJA program guidance
- 12 The recipient agrees that any information technology system funded or supported by OJP funds will comply with 28 C.F.R. Part 23, Criminal Intelligence Systems Operating Policies, if OJP determines this regulation to be applicable. Should OJP determine 28 C.F.R. Part 23 to be applicable, OJP may, at its discretion, perform audits of the system, as per the regulation. Should any violation of 28 C.F.R. Part 23 occur, the recipient may be fined as per 42 U.S.C. 3789g(c)-(d). Recipient may not satisfy such a fine with federal funds
- 13 The recipient agrees to ensure that the State Information Technology Point of Contact receives written notification regarding any information technology project funded by this grant during the obligation and expenditure period. This is to facilitate communication among local and state governmental entities regarding various information technology projects being conducted with these grant funds. In addition, the recipient agrees to maintain an administrative file documenting the meeting of this requirement. For a list of State Information Technology Points of Contact go to <http://www it ojp gov/default.aspx?area=policyAndPractice&page=1046>
- 14 Grantee agrees to comply with the requirements of 28 C.F.R. Part 46 and all Office of Justice Programs policies and procedures regarding the protection of human research subjects, including obtainment of Institutional Review Board approval, if appropriate and subject informed consent
- 15 Grantee agrees to comply with all confidentiality requirements of 42 U.S.C. section 3789g and 28 C.F.R. Part 22 that are applicable to collection, use, and revelation of data or information. Grantee further agrees, as a condition of grant approval, to submit a Privacy Certificate that is in accord with requirements of 28 C.F.R. Part 22 and, in particular, section 22.23

[Handwritten signature]



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

AWARD CONTINUATION
SHEET
Grant

PAGE 4 OF 5

PROJECT NUMBER 2010-DJ BX 1310

AWARD DATE 08/23/2010

SPECIAL CONDITIONS

- 16 The grantee agrees to assist BJA in complying with the National Environmental Policy Act (NEPA), the National Historic Preservation Act, and other related federal environmental impact analysis requirements in the use of these grant funds, either directly by the grantee or by a subgrantee. Accordingly, the grantee agrees to first determine if any of the following activities will be funded by the grant, prior to obligating funds for any of these purposes. If it is determined that any of the following activities will be funded by the grant, the grantee agrees to contact BJA:

The grantee understands that this special condition applies to its following new activities whether or not they are being specifically funded with these grant funds. That is, as long as the activity is being conducted by the grantee, a subgrantee, or any third party and the activity needs to be undertaken in order to use these grant funds, this special condition must first be met. The activities covered by this special condition are:

- a. New construction,
- b. Minor renovation or remodeling of a property located in an environmentally or historically sensitive area, including properties located within a 100-year flood plain, a wetland, or habitat for endangered species, or a property listed on or eligible for listing on the National Register of Historic Places.
- c. A renovation, lease, or any proposed use of a building or facility that will either (a) result in a change in its basic prior use or (b) significantly change its size,
- d. Implementation of a new program involving the use of chemicals other than chemicals that are (a) purchased as an incidental component of a funded activity and (b) traditionally used, for example, in office, household, recreational, or education environments, and
- e. Implementation of a program relating to clandestine methamphetamine laboratory operations, including the identification, seizure, or closure of clandestine methamphetamine laboratories.

The grantee understands and agrees that complying with NEPA may require the preparation of an Environmental Assessment and/or an Environmental Impact Statement, as directed by BJA. The grantee further understands and agrees to the requirements for implementation of a Mitigation Plan, as detailed at <http://www.ojp.usdoj.gov/BJA/resource/nepa.html>, for programs relating to methamphetamine laboratory operations.

Application of This Special Condition to Grantee's Existing Programs or Activities. For any of the grantee's or its subgrantees' existing programs or activities that will be funded by these grant funds, the grantee, upon specific request from BJA, agrees to cooperate with BJA in any preparation by BJA of a national or program environmental assessment of that funded program or activity.

- 17 The recipient is required to establish a trust fund account. (The trust fund may or may not be an interest-bearing account.) The fund, including any interest, may not be used to pay debts or expenses incurred by other activities beyond the scope of the Edward Byrne Memorial Justice Assistance Grant Program (JAG). The recipient also agrees to obligate and expend the grant funds in the trust fund (including any interest earned) during the period of the grant. Grant funds (including any interest earned) not expended by the end of the grant period must be returned to the Bureau of Justice Assistance no later than 90 days after the end of the grant period, along with the final submission of the Federal Financial Report (SF-425).
- 18 The recipient agrees that funds received under this award will not be used to supplant State or local funds, but will be used to increase the amounts of such funds that would, in the absence of Federal funds, be made available for law enforcement activities.



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

**AWARD CONTINUATION
SHEET
Grant**

PAGE 5 OF 5

PROJECT NUMBER 2010 DJ-BX-1310

AWARD DATE 08/23/2010

SPECIAL CONDITIONS

- 19 Award recipients must submit quarterly a Federal Financial Report (SF-425) and annual performance reports through GMS (<https://grants.ojp.usdoj.gov>). Consistent with the Department's responsibilities under the Government Performance and Results Act (GPRA), P.L. 103-62 applicants who receive funding under this solicitation must provide data that measure the results of their work. Therefore, quarterly performance metrics reports must be submitted through BJA's Performance Measurement Tool (PMT) website (www.bjaperformancetools.org). For more detailed information on reporting and other JAG requirements refer to the JAG reporting requirements webpage. Failure to submit required JAG reports by established deadlines may result in the freezing of grant funds and future High Risk designation.
- 20 Award recipients must verify Point of Contact (POC), Financial Point of Contact (FPOC), and Authorized Representative contact information in GMS, including telephone number and e-mail address. If any information is incorrect or has changed, a Grant Adjustment Notice (GAN) must be submitted via the Grants Management System (GMS) to document changes.
- 21 The grantee agrees that within 120 days of award acceptance, each member of a law enforcement task force funded with these funds who is a task force commander, agency executive, task force officer, or other task force member of equivalent rank, will complete required online (internet-based) task force training. The training is provided free of charge online through BJA's Center for Task Force Integrity and Leadership (www.ctfli.org). All current and new task force members are required to complete this training once during the life of the award, or once every four years if multiple awards include this requirement. This training addresses task force effectiveness as well as other key issues including privacy and civil liberties/rights, task force performance measurement, personnel selection, and task force oversight and accountability. Additional information is available regarding this required training and access methods via BJA's web site and the Center for Task Force Integrity and Leadership (www.ctfli.org).
- 22 Recipient may not expend or drawdown funds until the Bureau of Justice Assistance, Office of Justice Programs has received and approved the signed Memorandum of Understanding (MOU) between the disparate jurisdictions and has issued a Grant Adjustment Notice (GAN) releasing this special condition.



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

Washington, D.C. 20531

Memorandum For: Official Grant File

From: Orbin Terry, NEPA Coordinator

Subject: Incorporates NEPA Compliance in Further Developmental Stages for Galveston County

The Edward Byrne Memorial Justice Assistance Grant Program (JAG) allows states and local governments to support a broad range of activities to prevent and control crime and to improve the criminal justice system, some of which could have environmental impacts. All recipients of JAG funding must assist BJA in complying with NEPA and other related federal environmental impact analyses requirements in the use of grant funds, whether the funds are used directly by the grantee or by a subgrantee or third party. Accordingly, prior to obligating funds for any of the specified activities, the grantee must first determine if any of the specified activities will be funded by the grant.

The specified activities requiring environmental analysis are:

- a. New construction,
- b. Any renovation or remodeling of a property located in an environmentally or historically sensitive area, including properties located within a 100-year flood plain, a wetland, or habitat for endangered species, or a property listed on or eligible for listing on the National Register of Historic Places,
- c. A renovation, lease, or any proposed use of a building or facility that will either (a) result in a change in its basic prior use or (b) significantly change its size,
- d. Implementation of a new program involving the use of chemicals other than chemicals that are (a) purchased as an incidental component of a funded activity and (b) traditionally used, for example, in office, household, recreational, or education environments, and
- e. Implementation of a program relating to clandestine methamphetamine laboratory operations, including the identification, seizure, or closure of clandestine methamphetamine laboratories.

Complying with NEPA may require the preparation of an Environmental Assessment and/or an Environmental Impact Statement, as directed by BJA. Further, for programs relating to methamphetamine laboratory operations, the preparation of a detailed Mitigation Plan will be required. For more information about Mitigation Plan requirements, please see <http://www.ojp.usdoj.gov/BJA/resource/nepa.html>

Please be sure to carefully review the grant conditions on your award document, as it may contain more specific information about environmental compliance.



Department of Justice
Office of Justice Programs
Bureau of Justice Assistance

GRANT MANAGER'S MEMORANDUM, PT. I:
PROJECT SUMMARY

Grant

PROJECT NUMBER

2010-DJ-BX-1310

PAGE 1 OF 1

This project is supported under FY10 (BJA - JAG) 42 USC 3750 et seq

1 STAFF CONTACT (Name & telephone number)

Carrie Booth
(202) 305-7426

2 PROJECT DIRECTOR (Name, address & telephone number)

Connie Nicholson
Grant Coordinator
722 Moody
Galveston, TX 77550-2301
(281) 534 8442

3a TITLE OF THE PROGRAM

FY 2010 Justice Assistance Grant Program

3b POMS CODE (SEE INSTRUCTIONS
ON REVERSE)

4 TITLE OF PROJECT

Galveston County Law Enforcement Technology and Safety Improvement Program

5 NAME & ADDRESS OF GRANTEE

Galveston County
722 Moody
Galveston, TX 77550-2301

6 NAME & ADDRESS OF SUBGRANTEE

7 PROGRAM PERIOD

FROM 10/01/2009 TO 09/30/2013

8 BUDGET PERIOD

FROM 10/01/2009 TO 09/30/2013

9 AMOUNT OF AWARD

\$ 101,450

10 DATE OF AWARD

08/23/2010

11 SECOND YEAR'S BUDGET

12 SECOND YEAR'S BUDGET AMOUNT

13 THIRD YEAR'S BUDGET PERIOD

14 THIRD YEAR'S BUDGET AMOUNT

15 SUMMARY DESCRIPTION OF PROJECT (See instruction on reverse)

The Edward Byrne Memorial Justice Assistance Grant Program (JAGs) allows states and units of local government, including tribes, to support a broad range of activities to prevent and control crime based on their own state and local needs and conditions. Grant funds can be used for state and local initiatives, technical assistance, training, personnel, equipment, supplies, contractual support, and information systems for criminal justice, including for any one or more of the following purposes: 1) law enforcement programs; 2) prosecution and court programs; 3) prevention and education programs; 4) corrections and community corrections programs; 5) drug treatment and enforcement programs; 6) planning, evaluation, and technology improvement programs; and 7) crime victim and witness programs (other than compensation).

The Galveston County, the city of Texas, and the city of Galveston have been designated as disparate jurisdictions to share the FY2010 Bureau of Justice Assistance (BJA) award. Galveston County will serve as the fiscal agent for the award and use their portion of grant funds to purchase law enforcement equipment. The grant (JEP FORM 4090.2 (REV. 4-85))

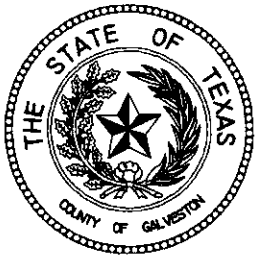
funds will be used to enhance criminal prosecutions with the use of in-car video camera systems. The city of Texas will use their share of the grant funds to purchase tactical equipment and patrol equipment. Funds will be used to purchase specialized tactical patrol uniforms, duty rigs, duty weapons, rifles and attachments, non-lethal weapons/tasers, and fire retardant clothing/helmets. The equipment will outfit Tactical Patrol Units which enhance law enforcement safety and reduction efforts. The city of Galveston will use their share of grant funds to purchase equipment that will enhance the prosecution of criminals. Law enforcement will be equipped with better evidence-based collection equipment, including 30 Basic Patrol Identification Crime Scene kits and 10 Advanced Patrol Identification Crime Scene Kits (cameras, batteries, and crime scene processing materials). Galveston will use grant funds to purchase 2 Kawasaki motorcycles 4016 4X4. Galveston Island provides enforcement on approximately 31 miles of beach. The additional 2 miles will service the east end and support crime suppression/reduction efforts.

NCA/NCF

AGENDA

ITEM

#5



Cheryl E. Johnson
Assessor And Collector of Taxes
Galveston County

Galveston County Courthouse
722 Moody, Galveston, Texas 77550
(409) 765-3277 Toll Free (877) 766-2284 Fax (409) 766-2479
Cheryl E Johnson@co galveston tx us

February 1, 2011

Mark Henry
County Judge
722 Moody Street
Galveston, Texas 77550

Re Tax Refunds in Excess of \$2,500 00

Dear Judge Henry

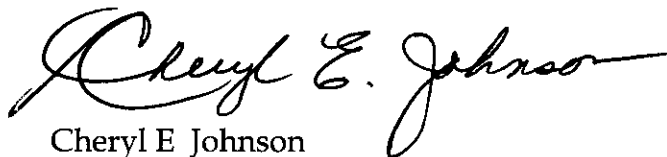
In accordance with Section 31.11 (a) of the Texas Property Tax Code, I hereby request approval of the following refund (s)

<u>Account Number</u>	<u>Amount</u>	<u>Reason</u>
1386-0002-0035-000	\$ 2,962 84	Duplicate
1395-0008-0080-000	\$ 2,851 93	Duplicate
2390-0002-0001-002	\$ 5,615 49	Duplicate
2650-0000-0007-000	\$ 27,100 09	Duplicate
3866-0000-0001-005	\$ 7,800 00	Overpayment
4505-0000-0020-000	\$ 4,957 00	Overpayment
4850-0000-0016-000	\$ 2,622 51	Duplicate
5050-0000-0006-010	\$ 2,843 33	Duplicate
5293-0000-1004-000	\$ 3,513 16	Duplicate
5515-0010-0001-000	\$ 4,714.54	Duplicate
5602-0001-0072-000	\$ 2,785 92	Duplicate
6041-0002-0010-000	\$ 3,056 73	Duplicate
6384-0000-1923-001	\$ 9,068 05	Duplicate
7170-0000-0032-000	\$ 2,835 36	Duplicate
1381-0003-0022-000	\$ 3,053 88	Duplicate
1600-0000-0019-100	\$ 14,442 44	Duplicate
2098-0001-0011-000	\$ 2,983 47	Duplicate
2862-0003-0003-000	\$ 3,196 62	Overpayment
2960-0001-0053-000	\$ 6,082 95	Duplicate
2996-0000-0175-000	\$ 2,751 10	Overpayment
3505-0017-0001-000	\$ 7,442 60	Duplicate

Judge Henry
February 1, 2011
Page 2

<u>Account Number</u>	<u>Amount</u>	<u>Reason</u>
3510-0042-2000-008	\$ 7,331 13	Duplicate
3510-0113-1004-001	\$ 2,875 14	Duplicate
3510-0113-2011-001	\$ 3,143.58	Overpayment
3535-0003-0007-000	\$ 2,642 95	Duplicate
3688-0001-0009-000	\$ 2,525 01	Duplicate
3755-0003-0011-000	\$ 9,665 94	Overpayment
3821-0002-0034-000	\$ 2,550.89	Overpayment
3956-0000-0046-000	\$ 3,796 69	Duplicate
4959-0003-0010-000	\$ 2,701 29	Duplicate
5049-0000-0002-000	\$ 4,780 04	Duplicate
5970-0000-0006-000	\$ 2,717.17	Duplicate
6390-0000-1804-000	\$ 6,407 00	Duplicate
6392-0000-0036-000	\$ 4,061 59	Duplicate
6396-0001-0015-000	\$ 4,917 64	Duplicate
7205-0000-0520-001	\$ 3,049 82	Overpayment
7549-0001-0016-000	\$ 3,793 78	Duplicate
8700-0501-7746-035	\$ 4,951 23	Duplicate

Sincerely,


Cheryl E Johnson

Thompson, Nita

From: Perkett, Martha
Sent: Tuesday, February 01, 2011 1 09 PM
To: Thompson, Nita
Subject: Refunds in excess of \$2500

Nita,

Please submit the following refunds to Commissioners' Court for approval

✓1386-0002-0035-000	\$ 2,962 84	Duplicate
✓1395-0008-0080-000	\$ 2,851 93	Duplicate
✓2390-0002-0001-002	\$ 5,615 49	Duplicate
✓2650-0000-0007-000	\$27,100 09	Duplicate
✓3866-0000-0001-005	\$ 7,800 00	Overpayment
✓4505-0000-0020-000	\$ 4,957 00	Overpayment
✓4850-0000-0016-000	\$ 2,622 51	Duplicate
✓5050-0000-0006-010	\$ 2,843 33	Duplicate
✓5293-0000-1004-000	\$ 3,513 16	Duplicate
✓5515-0010-0001-000	\$ 4,714 54	Duplicate
✓5602-0001-0072-000	\$ 2,785 92	Duplicate
✓6041-0002-0010-000	\$ 3,056 73	Duplicate
✓6384-0000-1923-001	\$ 9,068 05	Duplicate
✓7170-0000-0032-000	\$ 2,835 36	Duplicate
✓1381-0003-0022-000	\$ 3,053 88	Duplicate
✓1600-0000-0019-100	\$14,442 44	Duplicate
✓2098-0001-0011-000	\$ 2,983 47	Duplicate
✓2862-0003-0003-000	\$ 3,196 62	Overpayment
✓2960-0001-0053-000	\$ 6,082 95	Duplicate
✓2996-0000-0175-000	\$ 2,751 10	Overpayment
✓3505-0017-0001-000	\$ 7,442 60	Duplicate
✓3510-0042-2000-008	\$ 7,331 13	Duplicate
✓3510-0113-1004-001	\$ 2,875 14	Duplicate
✓3510-0113-2011-001	\$ 3,143 58	Overpayment
✓3535-0003-0007-000	\$ 2,642 95	Duplicate
✓3688-0001-0009-000	\$ 2,525 01	Duplicate
✓3755-0003-0011-000	\$ 9,665 94	Overpayment
✓3821-0002-0034-000	\$ 2,550 89	Overpayment
✓3956-0000-0046-000	\$ 3,796 69	Duplicate
✓4959-0003-0010-000	\$ 2,701 29	Duplicate
✓5049-0000-0002-000	\$ 4,780 04	Duplicate
✓5970-0000-0006-000	\$ 2,717.17	Duplicate
✓6390-0000-1804-000	\$ 6,407 00	Duplicate
✓6392-0000-0036-000	\$ 4,061 59	Duplicate
✓6396-0001-0015-000	\$ 4,917 64	Duplicate
✓7205-0000-0520-001	\$ 3,049 82	Overpayment
✓7549-0001-0016-000	\$ 3,793 78	Duplicate
8700-0501-7746-035	\$ 4,951 23	Duplicate

Thanks,

AGENDA

ITEM

#6



Cheryl E. Johnson, RTA

Assessor and Collector of Taxes
Galveston County

Galveston County Courthouse
722 Moody Avenue, Galveston, Texas 77550
Toll Free 877-766-2284 Fax 409-766-2479 Office 409-765-3277
Cheryl E Johnson@co galveston tx us



January 26, 2011

The Honorable Mark Henry, County Judge
Galveston County
722 Moody Avenue
Galveston, TX 77550

Dear Judge Henry

On December 15th, 2010, Galveston County entered into an Agreement with The Kroger Company for the lease of remote sticker printing systems (RSPS) At the time, one of the seven leased units was designated to be placed in Friendswood

Since that date and before the equipment could be installed, it was determined that the Friendswood address specified in the Agreement is in Harris County The enclosed Amendment No 1 to that agreement provides that the RSPS equipment will be placed in Galveston County in Friendswood

Please place the enclosed Amendment on the next soonest Commissioners' Court agenda for approval Once approved and signed, we can complete our goal to install RSPS equipment at every Kroger location in Galveston County

There are two sets of original documents enclosed Upon approval, please return a signed original to my office for Kroger management A copy of the original Agreement is enclosed for your convenience

Thank you for your help with this matter

Sincerely,


Cheryl E Johnson

**AMENDMENT NO. 1 TO THE
AGREEMENT UNDER TRANSPORTATION CODE CHAPTERS 502 AND 520 FOR
SERVICES TO THIRD PARTIES RELATED TO LICENSING OF VEHICLES
AND SUBLEASE OF REMOTE STICKER PRINTING SYSTEM**

On December 15, 2010, Galveston County entered into an "Agreement" with The Kroger Company as Contractor for the lease of Remote Sticker Printing System (RSPS) equipment. The equipment and its locations were cited in Exhibits A-1 through A-7 and B-1 through B-7 in the original "Agreement."

The Exhibits A-7 and B-7 accompanying this amendment are substituted for those in the original agreement in their entirety.

No further changes to the agreement of December 10, 2010 are contemplated under this Amendment.

GALVESTON COUNTY, TEXAS



MARK HENRY
County Judge
Galveston County, Texas



CHERYL E. JOHNSON
Tax Assessor/Collector
Galveston County, Texas

Date February 9, 2011

Date 1/26/11

Attest:



Dwight Sullivan
County Clerk

THE KROGER COMPANY

By



Robert Snuske
Audit Manager

Exhibit A-7

Galveston County RSPS Equipment Inventory Listing

Location of Equipment. 151 N Friendswood Drive, Friendswood, TX 77546

Remote Sticker Printing System (RSPS) includes Laptop preloaded with XP operating system, Printer, Hand held bar code scanner, and Surge protector

RSPS Equipment items

Equipment	Unit Value	Serial Number
Laptop	\$1,500 00	D82BWN1
Printer	1,000 00	CNJ1F61318
Hand help bar code scanner	100 00	M1W1T1
Surge protector	15 00	N/ A
USB Flash Drives - 2 each	50 00	N/ A

Exhibit B-7

Galveston County RSPS Equipment Lessee Information

Business Name	The Kroger Company
Business Address	19245 David Memorial Drive Shenandoah, TX 77385
Mailing Address	19245 David Memorial Drive Shenandoah, TX 77385
Telephone Number	713 507 6032
Fax Number	936 442 6700
Contact Principal	Robert Snuske, Audit Manager
Contact Telephone	713 507 6032
Location of Equipment.	151 N Friendswood Drive Friendswood, TX 77546

**AGREEMENT UNDER TRANSPORTATION CODE CHAPTERS 502 AND 520 FOR
SERVICES TO THIRD PARTIES RELATED TO THE LICENSING OF VEHICLES
AND SUBLEASE OF REMOTE STICKER PRINTING SYSTEM**

This Agreement ("Agreement") is entered into pursuant to the provisions of the Texas Transportation Code Chapters 502 and 520 by and between The Kroger Company, hereinafter referred to as "Subcontractor" and Galveston County, Texas (the "County"), a political subdivision of the State of Texas, acting through the *Commissioners Court of Galveston County in conjunction with the Galveston County Tax Assessor/Collector*, hereinafter collectively referred to as the "County"

Recitals

Pursuant to the provisions of the Texas Transportation Code §502.112, the Tax Assessor/Collector of the County, with the approval of the Commissioners Court, may deputize an individual to: 1) issue motor vehicle registration receipts as a limited service deputy; or 2) issue motor vehicle registration receipts and prepare or accept *applications for title transfers as a full service deputy.*

Under authority granted by the Texas Transportation Code §520.002 (c), the Tax Assessor/Collector of the County may install equipment leased under this section at offices of the county or of an agent of the county

The County has entered into an agreement with the State of Texas (the "State") to lease Remote Sticker Processing Systems (RSPS) to provide registration and/or title update connectivity and processing on the State's Registration and Title System ("RTS") As part of the RTS, the County is further authorized to have Remote Sticker Printing System ("RSPS") equipment at any location within the County under

agreements with Subcontractors desiring to have such on-premises capabilities. It is to the advantage of County residents to have RSPS equipment and RTS workstations at various locations throughout the County.

The Subcontractor desires to be deputized pursuant to Texas Transportation Code §502.112(a)(1) and receive RSPS equipment from the County for the purpose of performing such duties pursuant to Transportation Code §502.113(a) at its locations set forth in Exhibit A attached hereto

The County's RTS program is operated and administered by the Galveston County Tax Assessor/Collector, as part of the County Tax Assessor/Collector's registration and titling duties under the Texas Transportation Code, and the duties and obligations incumbent upon the County under this Agreement will be performed through that office.

NOW, THEREFORE, for and in consideration of the mutual covenants, agreements and benefits to the parties herein named, it is agreed as follows:

1) Contracts term

The Agreement is effective upon the signing by the Commissioners Court of Galveston County and will end August 31, 2011. This Agreement will automatically renew for two subsequent renewal terms of one year each unless terminated earlier by the parties; in all events this Agreement will expire on August 31, 2013.

2) Scope of Services

The parties acknowledge that pursuant to Transportation Code § 502 113, limited service deputies may be given the authority to use the data processing equipment and software made the subject of this Agreement, thus the parties agree that the Subcontractor shall act only as a limited service deputy in accordance with the provisions of Transportation Code §502.112(a)(1) and 502 113.

3) Lease of Equipment

The County will provide at no cost to Subcontractor the RSPS equipment and software (the "Equipment" or "Workstations/Equipment") listed in Exhibit A 1 through 7, which is attached hereto and made a part hereof. The Subcontractor represents that it is fully trained to operate the Equipment in accordance with all applicable laws and regulation, but the County, through the County Tax Assessor/Collector, may provide for installation, training, maintenance, and other services at the request of the Subcontractor.

The parties agree that there is no cost for leasing the RSPS Equipment provided to the Subcontractor by the County. In the event the annual lease amount changes, the County will give Subcontractor at least thirty (30) days notice of any actual or proposed change in lease costs.

County shall supply Subcontractor with the numbered and secured registration forms and supplies (hereinafter the "Stickers").

4) Obligations of Subcontractor

Subcontractor must accurately complete the Subcontractor Information Sheet,

and attached a copy to this Agreement as Exhibit B. If during the term of this Agreement, there are any changes to information contained in the Subcontractor Information Sheet (such as by way of example, but not limitation, changes in name, location, and principal), Subcontractor shall within ten (10) business days submit to the County Tax Assessor/Collector an updated Exhibit B to accurately reflect the changed information.

In the event the Subcontractor undergoes a change in the controlling ownership, the County Tax Assessor/Collector must be notified within seven (7) days of such change so an audit can be conducted of Subcontractor's remaining Stickers. New owners must be approved by the County Tax Assessor/Collector and must complete and sign a new Sublease with the County. Subcontractor must perform all of the services under this Agreement and may not assign this Agreement or any duty or obligation of performance hereunder

Subcontractor is responsible for the costs of all utilities, network/internet access, connections, wirings, and other such matters necessary for the operation and use of the Workstations/Equipment provided under Exhibit A. The County's responsibility for Equipment installed at Subcontractor's sites is limited to ensuring that the Equipment remains operational.

Subcontractor is responsible for any maintenance or upkeep not provided by the State. Subcontractor shall not modify the Workstations/Equipment. Subcontractor shall be further responsible for full repair or replacement costs for the Workstations/Equipment in the event that these items under Subcontractor's control

are damaged or lost. All repairs work must be performed by the State or the State's designee. The repair cost shall be determined by the State or the State approved contractor. Subcontractor's payment for repair or replacement costs for damaged or lost Workstations/Equipment shall be remitted by Subcontractor to the County Tax Assessor/Collector within seven (7) days of written request by the County Tax Assessor/Collector.

Subcontractor shall in all respects be responsible for and hold the County harmless from any damage to or the destruction of Workstations/Equipment installed or housed at Subcontractor's locations listed on Exhibit A, and the Subcontractor specifically agrees that Exhibit A states the replacement cost which the Subcontractor agrees to pay upon the determination by the State of Subcontractor's liability for lost or damaged Equipment.

5) Subcontractor bond requirements.

In accordance with the provisions of Texas Transportation Code §502.112, the Subcontractor shall post a bond, made payable to the Cheryl Johnson, Tax Assessor-Collector of Galveston County in the amount of \$42,000.00 for the RSPS Equipment leased to Subcontractor (\$6,000 per location as listed in Exhibit A) conditioned upon the Subcontractor's proper accounting and remittance of all fees the Subcontractor collects under this Agreement. In lieu of a bond, the Subcontractor may provide an irrevocable letter of credit drawn upon a bank licensed to operate in the State of Texas.

6) Subcontractor reports and responsibilities

The Subcontractor must report the activities for which the Equipment is utilized as set forth herein.

Subcontractor will provide a detailed report of daily sales. Reports must be on 3½" floppy disks, or other medium selected by the County Tax Assessor/Collector that is compatible with the RSPS system. But the parties agree that as of the date of the execution of this Agreement, the 3½" floppy disc is the medium utilized pursuant to the requirements of the State of Texas.

If Subcontractor issues a renewal sticker in error, Subcontractor shall promptly report to the County Tax Assessor/Collector and have the sticker returned to the County Tax Assessor/Collector for cancellation. If a sticker is issued in error and not reported to the County Tax Assessor/Collector, Subcontractor shall pay a fee the equivalent to the registration fee issued in error upon demand without the necessity of the County issuing an invoice.

If Subcontractor becomes aware of or suspects fraud, Subcontractor shall report same to the County Tax Assessor/Collector by telephone within 24 hours and in writing within three (3) business days. Subcontractor shall not knowingly allow the Workstations/Equipment to be used for the purpose of defrauding the State or avoiding taxation

Subcontractor shall provide access to authorized representatives of the County Tax Assessor/Collector to Subcontractor's area where registration, titling, and licensing occurs. Subcontractor will also assist the County Tax Assessor/Collector in audits of Subcontractor's licensing, titling, and performance of this Agreement

Subcontractor's use of the Workstations/Equipment shall be subject to and in compliance with the terms and conditions of the Agreement for the use of the Workstations/Equipment between State of Texas and the County, and any amendments thereto. A copy of those requirements is attached to the Agreement as Exhibit C and are incorporated herein by reference

Subcontractor shall not remove the Workstations/Equipment from Subcontractor's location specified in this Agreement without the prior written consent of the County Tax Assessor/Collector.

If Subcontractor accepts personal checks for payment, such act is done at Subcontractor's personal risk.

All of Subcontractor's employees who process registrations must be deputized through the County Tax Assessor/Collector's Office and bonded prior to the issuing of any receipts or stickers. Subcontractor will notify the County Tax Assessor/Collector promptly whenever a deputized employee leaves Subcontractor's employment. All employees, whether new, transferred or providing back-up coverage must be deputized and bonded prior to assuming the license work under this Agreement. If there are any material changes in ownership, Subcontractor's employees who handle license work must be re-deputized.

7) Fees allowed to Subcontractor

Pursuant to Transportation Code §502.113, a limited-service deputy appointed hereunder shall accept any application for registration or registration renewal that the

County Assessor/Collector may accept. Subcontractor shall remit such fees collected from the issuance of motor vehicle registrations to the County Tax Assessor/Collector.

The Subcontractor is hereby authorized to charge and retain an additional motor vehicle registration fee not to exceed \$1.00 for each motor vehicle registration issued (the "Processing Fee"), and will report to the Tax Assessor Collector only the amount of fees (excluding Processing Fees) it collects under this Agreement.

8) Termination

Prior to the expiration of the term, either party may terminate this Agreement with or without cause or mutual convenience upon ten (10) days written notice to the other party. All Equipment and software provided under this Agreement will be returned to the County within ten (10) days after the date of termination of this Agreement. Within ten (10) days after the effective date of termination, Subcontractor must submit a termination statement and report for the month in which termination occurs. Upon the conduct of a final audit and satisfactory reconciliation of all amounts due the County hereunder, the County will return the bond or letter of credit provided under this Agreement.

9) Miscellaneous notices and disclosures

This Agreement is contingent upon the receipt of the Equipment specified herein from the State of Texas. The parties agree the Equipment and related software is the property of the State of Texas, and is only provided to the Subcontractor pursuant to this Agreement. In the event the State imposes additional obligations upon the County, such obligations shall immediately become binding upon the Subcontractor, and

County shall notify the Subcontractor in writing forthwith.

In the event of nonpayment or other default, Subcontractor shall cure such default within ten (10) days of the default. The County Tax Assessor/Collector may enter onto Subcontractor's premises where the Equipment may then be and remove the Workstations/Equipment and Stickers if the default is not cured within ten (10) days. In the event of Workstations/Equipment removal because of Subcontractor nonpayment or other default, Subcontractor forfeits any portion of annual lease fee that remains

Neither party shall assign its rights, nor delegate its duties under this Agreement without prior written consent of the other party.

This Agreement shall be governed by and construed under the laws of the State of Texas. Furthermore, the venue for any action filed pertaining to the lease or the equipment subject to this lease shall be located in Galveston County, Texas

This Agreement and the accompanying Exhibits constitute the entire agreement between the parties and no representation made between the parties and not reduced to writing herein shall be of any force or effect. Any previous agreement entered into between the parties to effect the purposes set forth herein and hereby set aside and held for naught. This Agreement may not be modified except by written agreement between the parties. If any provision is invalid, it shall be considered deleted from this Agreement, and shall not invalidate the remaining provisions of this Agreement.

This Agreement is not binding until executed by an authorized representative of each party

Any notice permitted or required to be given hereunder to Subcontractor or County must be given by registered or certified United States mail, postage prepaid, return receipt requested, or facsimile transmission addressed to:

Subcontractor:

The Kroger Company
19245 David Memorial Dr.
Shenandoah, TX 77385

Any notice permitted or requested to be given hereunder to County may be given by registered or certified United States mail, postage prepaid, return receipt requested, or by facsimile transmission addressed to


Galveston County Tax Assessor/Collector
Attention: Branch Coordinator
722 Moody Avenue
Galveston, Texas 77550
Facsimile: (409) 766-2479

In performing the services hereunder, Subcontractor must comply with all applicable Federal, State, and local laws, regulations, rules, and ordinances now in effect or which may hereafter be promulgated that pertain to this Agreement.


Subcontractor shall report and pay applicable federal and local taxes.

This Agreement is signed and approved by the Commissioners Court of Galveston County as required under the provisions of Transportation Code §502.112.

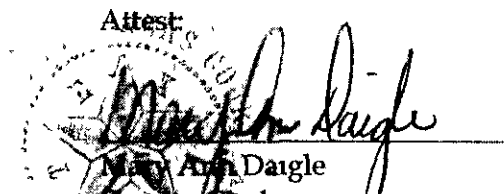
GALVESTON COUNTY, TEXAS


JAMES D. VARBLE
County Judge
Galveston County, Texas

Date December 15, 2010


CHERYL E. JOHNSON
County Tax Assessor/Collector
Galveston County, Texas

Date 12/16/10

Attest:

Mary Ann Daigle
County Clerk

THE KROGER COMPANY

By 
Robert Snuske
Audit Manager

date: 11/17/2010

Exhibit A-1

Galveston County RSPS Equipment Inventory Listing

Location of equipment: 3541 Palmer Highway, Texas City, TX 77590

Remote Sticker Printing System (RSPS) includes Laptop preloaded with XP operating system, Printer, Hand held bar code scanner, and Surge protector.

RSPS Equipment Items:

Equipment	Unit Value	Serial Number
Laptop	\$1,500.00	H82BWN1
Printer	1,000.00	CNJ1561315
Hand held bar code Scanner	100.00	MOU2P8
Surge Protector	15.00	N/A
USB Flash Drives - 2 each	50.00	N/A

Exhibit A-2

Galveston County RSPS Equipment Inventory Listing

Location of equipment: 3410 Gulf Freeway, Dickinson, TX 77539

Remote Sticker Printing System (RSPS) includes Laptop preloaded with XP operating system, Printer, Hand held bar code scanner, and Surge protector.

RSPS Equipment Items:

Equipment	Unit Value	Serial Number
Laptop	\$1,500.00	B82BWN1
Printer	1,000.00	CNJ1D62689
Hand held bar code Scanner	100.00	M0T4B3
Surge Protector	15.00	N/A
USB Flash Drives – 2 each	50.00	N/A

Exhibit A-3

Galveston County RSPS Equipment Inventory Listing

Location of equipment: 5730 Seawall Boulevard, Galveston, TX 77551

Remote Sticker Printing System (RSPS) includes Laptop preloaded with XP operating system, Printer, Hand held bar code scanner, and Surge protector

RSPS Equipment Items:

Equipment	Unit Value	Serial Number
Laptop	\$1,500.00	G82BWN1
Printer	1,000 00	CNJ1F61309
Hand held bar code Scanner	100.00	M1W1G8
Surge Protector	15.00	N/A
USB Flash Drives – 2 each	50.00	N/A

Exhibit A-4

Galveston County RSPS Equipment Inventory Listing

Location of equipment: 200 Gulf Freeway S, League City, TX 77573

Remote Sticker Printing System (RSPS) includes Laptop preloaded with XP operating system, Printer, Hand held bar code scanner, and Surge protector.

RSPS Equipment Items:

Equipment	Unit Value	Serial Number
Laptop	\$1,500.00	J82BWN1
Printer	1,000.00	CNJ1F61312
Hand held bar code Scanner	100.00	M1V4H1
Surge Protector	15.00	N/A
USB Flash Drives – 2 each	50 00	N/A

Exhibit A-5

Galveston County RSPS Equipment Inventory Listing

Location of equipment: 2750 E League City Pkwy, League City, TX 77573

Remote Sticker Printing System (RSPS) includes Laptop preloaded with XP operating system, Printer, Hand held bar code scanner, and Surge protector.

RSPS Equipment Items.

Equipment	Unit Value	Serial Number
Laptop	\$1,500.00	C82BWN1
Printer	1,000.00	CNR1B12063
Hand held bar code Scanner	100.00	M1V6B3
Surge Protector	15.00	N/A
USB Flash Drives - 2 each	50.00	N/A

Exhibit A-6

Galveston County RSPS Equipment Inventory Listing

Location of equipment: 250 S FM 270, League City, TX 77573

Remote Sticker Printing System (RSPS) includes Laptop preloaded with XP operating system, Printer, Hand held bar code scanner, and Surge protector.

RSPS Equipment Items:

Equipment	Unit Value	Serial Number
Laptop	\$1,500.00	982BWN1
Printer	1,000.00	CNJ1F64267
Hand held bar code Scanner	100.00	MT8F0M
Surge Protector	15.00	N/A
USB Flash Drives - 2 each	50.00	N/A

Exhibit A-7

Galveston County RSPS Equipment Inventory Listing

Location of equipment: 3135 FM 528, Friendswood, TX 77546

Remote Sticker Printing System (RSPS) includes Laptop preloaded with XP operating system, Printer, Hand held bar code scanner, and Surge protector.

RSPS Equipment Items:

Equipment	Unit Value	Serial Number
Laptop	\$1,500.00	D82BWN1
Printer	1,000.00	CNJ1F61318
Hand held bar code Scanner	100.00	M1W1T1
Surge Protector	15.00	N/A
USB Flash Drives - 2 each	50.00	N/A

Exhibit B - 1

Galveston County RSPS Equipment Lessee Information

Date: November 10, 2010

Business Name: The Kroger Company

Business Address: 19245 David Memorial Dr.
Shenandoah, TX 77385

Mailing Address: 19245 David Memorial Dr
Shenandoah, TX 77385

Telephone Number: 713.507.6032

Fax Number: 936.442.6700

Contact Principal: Robert Snuske, Audit Manager

Contact Telephone: 713.507.6032

Location of Equipment: 3541 Palmer Highway
Texas City, TX 77590

Exhibit B - 2

Galveston County RSPS Equipment Lessee Information

Date. November 10, 2010

Business Name: The Kroger Company

Business Address. 19245 David Memorial Dr.
Shenandoah, TX 77385

Mailing Address: 19245 David Memorial Dr
Shenandoah, TX 77385

Telephone Number: 713.507.6032

Fax Number: 936.442.6700

Contact Principal: Robert Snuske, Audit Manager

Contact Telephone: 713.507.6032

Location of Equipment: 3410 Gulf Freeway
Dickinson, TX 77539

Exhibit B - 3

Galveston County RSPS Equipment Lessee Information

Date: November 10, 2010

Business Name:	The Kroger Company
Business Address:	19245 David Memorial Dr.
	Shenandoah, TX 77385
Mailing Address:	19245 David Memorial Dr.
	Shenandoah, TX 77385
Telephone Number:	713.507.6032
Fax Number:	936.442.6700
Contact Principal:	Robert Snuske, Audit Manager
Contact Telephone:	713.507.6032
Location of Equipment:	5730 Seawall Boulevard
	Galveston, TX 77551

Exhibit B - 4

Galveston County RSPS Equipment Lessee Information

Date: November 10, 2010

Business Name: The Kroger Company

Business Address: 19245 David Memorial Dr.

Shenandoah, TX 77385

Mailing Address: 19245 David Memorial Dr.

Shenandoah, TX 77385

Telephone Number: 713.507.6032

Fax Number: 936 442.6700

Contact Principal: Robert Snuske, Audit Manager

Contact Telephone: 713.507 6032

Location of Equipment: 200 Gulf Freeway S

League City, TX 77573

Exhibit B - 5

Galveston County RSPS Equipment Lessee Information

Date: November 10, 2010

Business Name: The Kroger Company

Business Address: 19245 David Memorial Dr.
Shenandoah, TX 77385

Mailing Address: 19245 David Memorial Dr.
Shenandoah, TX 77385

Telephone Number: 713.507.6032

Fax Number: 936.442.6700

Contact Principal: Robert Snuske, Audit Manager

Contact Telephone: 713.507.6032

Location of Equipment: 2750 E League City Pkwy
League City, TX 77573

Exhibit B - 6

Galveston County RSPS Equipment Lessee Information

Date. November 10, 2010

Business Name: The Kroger Company

Business Address: 19245 David Memorial Dr.

Shenandoah, TX 77385

Mailing Address: 19245 David Memorial Dr.

Shenandoah, TX 77385

Telephone Number: 713.507.6032

Fax Number: 936.442.6700

Contact Principal: Robert Snuske, Audit Manager

Contact Telephone: 713.507 6032

Location of Equipment: 250 S FM 270

League City, TX 77573

Exhibit B - 7

Galveston County RSPS Equipment Lessee Information

Date: November 10, 2010

Business Name: The Kroger Company

Business Address: 19245 David Memorial Dr.

Shenandoah, TX 77385

Mailing Address: 19245 David Memorial Dr.

Shenandoah, TX 77385

Telephone Number: 713 507.6032

Fax Number: 936.442.6700

Contact Principal: Robert Snuske, Audit Manager

Contact Telephone: 713.507 6032

Location of Equipment: 3135 FM 528

Friendswood, TX 77546

Exhibit C - 1

STATE OF TEXAS

(Rev. January, 2003)

COUNTY OF GALVESTON

**AMENDMENT ONE (LEASE OF STATE OF TEXAS REGISTRATION AND TITLE SYSTEM
(RTS) INFORMATION RESOURCES AND SUPPORT) TO AGREEMENT FOR THE USE OF
STATE OF TEXAS AUTOMATION EQUIPMENT**

THIS AMENDMENT is made between the "State" and the "County" pursuant to the addition of SECTION 1, Subchapter A, Chapter 520, Section 520.002 of the Texas Transportation Code as enacted by the 78th Legislature of the State of Texas for the purposes of providing the County of GALVESTON, Texas an option to lease additional RTS workstations/items directly from the State. This amendment incorporates all the terms and provisions regarding responsibility for: equipment installation, RTS programming and hardware/software configuration, security, maintenance, equipment repair and replacement, equipment movement, unauthorized equipment use, building electrical requirements, accountability/inventory of equipment, training, and supplies provided in the Agreement for the Use of State of Texas Automation Equipment dated June 9, 1997.


In addition to the provisions of the original county agreement, TxDOT's responsibility for equipment installed at non-county tax assessor-collector sites; e.g. privately owned, for profit enterprises performing registration and title functions for the county tax office; will be limited to ensuring the equipment remains operational. The county will be responsible for all training, user support, forms, supplies, user policy and procedures, etc., associated with this leased equipment. This amendment will remain in force for as long as the Agreement for the Use of State of Texas Automation Equipment remains effective.

This Amendment provides a new option for the County to obtain additional RTS Information Resources and Support not identified in the Agreement for Use of State Automation Equipment. The process for requesting these resources and annual cost and billing information associated with this lease are included in Exhibit A to this Amendment.

RTS workstations identified below and/peripheral equipment identified on Exhibit A which are leased under the provisions of this amendment will be installed following approval of the County Commissioner's Court. This amendment will be signed below by the County Judge or will be supported by a certified copy of the Commissioner's Court Order or Resolution which will be attached, and the Director of the Vehicle Titles and Registration Division of the Texas Department of Transportation.

The County of GALVESTON, Texas will lease 9 additional RTS workstation(s)/items and requests that it/they be installed at the following County Tax Office manager or controlled site(s).

Main Office	8	722 Moody, Galveston, TX	8	RSPS DTA
Main Office	8	722 Moody, Galveston, TX	1	RSPS Renewal


County Judge Date: June 16, 2003
Galveston County
(rev. 2/2003)


 7-1-3
Jerry L. Dill, Director Date:
Vehicle Titles and
Registration Division

EXHIBIT "A" To Amendment One

State of Texas, County of CALVESTON

1. If a county desires additional RTS information resources, e.g. workstations or peripheral equipment, beyond that which is allocated by the State, the equipment and support may be leased at county expense from the State.
2. Submitting a signed amendment form to the supporting VTR regional office will constitute the County's formal request to lease RTS workstations and will signify that the County Tax Assessor-Collector has the funds necessary to lease this equipment.
3. The cost of leasing a basic RTS workstation will be \$1,500 per year, except if the installation is at a new site (at a site where RTS has not previously been installed). In this case, a "one time" additional fee of \$2,500 for the first workstation will be charged. The cost of leasing a Remote Sticker Printing System (RSPS) unit and/or a Dealer Title Application (DTA RSPS) unit is \$600.00. The cost of leasing other RTS information resources and support is reflected below. Counties will identify the type and amount of the equipment desired by appropriately annotating this quantity below.
4. During the first year of installation, the county will be billed during the month immediately following the month in which the equipment is installed for the pro-rated portion of the State fiscal year that remains. Thereafter, billing will occur annually during the first month of the State's fiscal year (September).
5. The county may request the State remove the equipment at any time and it will be removed within 30 days of the request being received by TxDOT. The county will forfeit any portion of the annual lease fee that remains.
6. Equipment leased by a county will remain in the county unless replaced by the State or until the County requests that it be removed.
7. Annual costs for the above equipment and services are subject to change annually. Counties will be notified at least 90 days in advance of proposed changes.
8. All county leased equipment, including Remote Sticker Printing Systems, are covered by their existing Agreement for the Use of State of Texas Automation Equipment, "County Agreement" (Item 8), and this Amendment. Counties may place Remote Sticker Printing System equipment at any location in their county subject to any terms between the county and the subcontractor/dealer.
9. Counties will annotate below (by site and quantity) equipment requirements. Total annual costs can be projected using the table provided. TxDOT will compute final costs and the county will be billed in accordance with paragraph 4 above.

1.	Workstation, Basic*			\$1,500.00	
2.	Remote Sticker Printing System (Renewal)**	MAIN OPC	1	600.00	\$600.00
3.	Remote Sticker Printing System (DTA)**	MAIN OPC	8	600.00	\$4800.00
4.	Uninterrupted Power Supply (UPS)			125.00	
5.	Printer Laser, HP 8000 (high capacity)			1,100.00	
6.	Additional Printer			250.00	
7.	Bar code reader			550.00	
8.	New Site Cost (one time fee)			2,500.00	
					\$5400.00

*Basic Workstation includes all standard items for full functionality (monitor, CPU, keyboard, printer, software, support, and cash drawer, if necessary) in a normal environment.

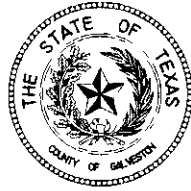
**RSPS (Remote Sticker Printing Systems) include Laptop preloaded with XP operating system, Printer (HP2200), Hand held bar code Scanner, Wireless Print Director, Wireless Access Card (The same equipment is used for DTA applications)

**RSPS units will be delivered to county tax offices only. Please show the county name in the site/location column for ordering purposes.

98 7-1-3

AGENDA ITEM

#7



THE COUNTY OF GALVESTON

RUFUS CROWDER, CPPB
PURCHASING AGENT

COUNTY COURTHOUSE
722 Moody (21st Street)
Fifth (5th) Floor
GALVESTON, TEXAS 77550
(409) 770-5371

GWEN MCLAREN, CPPB
ASST PURCHASING AGENT

February 2, 2011

Honorable County Judge
And Commissioners' Court
County Courthouse
Galveston, Texas

Re: Bid #B111026, Reconstruction of Sunnyview & Skyview Streets

Gentlemen,

On January 25, 2011 bids were opened for Bid #B111026, Reconstruction of Sunnyview & Skyview Streets, at which time eight (8) bids were received. The lowest responsible bid was received from Matula and Matula Construction, Inc., in the amount of \$755,351.60.

The County Engineer and I recommend that you award this bid to Matula and Matula Construction, Inc.

Your consideration in this matter will be greatly appreciated.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Rufus G. Crowder", is written over a horizontal line.

Rufus G. Crowder, CPPB
Purchasing Agent
County of Galveston

/dam

Attachments

McCullough, Darla

From: Fitzgerald, Mike
Sent: Wednesday, February 02, 2011 2:36 PM
To: Crowder, Rufus
Cc: Henry, Mark, Doyle, Patrick, O'Brien, Kevin, Holmes, Stephen, Ken Clark (clarkken@juno.com), Clark, Ken, Gilliam, Cindy, Mabry, Celia-Frances, McCullough, Darla, Robertson, Elizabeth
Subject: FW: Sunnyview and Skyview Reconstruction
Attachments: Letter of Recommendation - Sunnyview and Skyview pdf, 09-100 Bid Tab pdf

Rufus, attached is the bid tabulation for Sunnyview and Skyview Street Reconstruction in Friendswood. This is a 2008 road bond project. It is my recommendation that the project be awarded to the low responsible bidder, Matula and Matula Construction Inc, per their bid of \$755,351.60. Funds are available in the road bond account. There is no hurry on this and it can wait two weeks if needed.

From: Hanks, Matthew [<mailto:Matthew.Hanks@hdrinc.com>]
Sent: Wednesday, February 02, 2011 9:40 AM
To: Fitzgerald, Mike
Cc: Thompson, Jimmy
Subject: Sunnyview and Skyview Reconstruction

Mike,

Attached is the recommendation letter and bid tabulation for the Sunnyview and Skyview Reconstruction Project. The letter of recommendation is based on the corrected unit price for Item #11 as discussed in the previous e-mail. I will place the original in the mail to you today.

Please let me know if you need anything further from me.

Thank You,

Mr. Matthew A. Hanks J.D., P.E.
Project Manager

HDR | Claunch & Miller

ONE COMPANY | Many Solutions

4635 Southwest Freeway, Suite 1000 | Houston, Texas 77027
Phone (713) 622-9264 | Fax (713) 622-9265
Email Matthew.Hanks@hdrinc.com

HDR | **CLAUNCH & MILLER**
Engineering Consultants

February 2, 2011

Mr. Michael Fitzgerald
Galveston County
County Engineer
722 Moody
Galveston, TX 77550

Re. Sunnyview and Skyview Reconstruction
Bid #B111026
HDR Job No. 09-100

Dear Mr. Fitzgerald.

On January 25, 2011, the County received eight (8) bids for the above referenced project. The following is a summary of our bid evaluation:

Bid Tabulation Sheet – Eight (8) construction firms participated in the bidding process. Each bid was checked for mathematical errors and/or bid irregularities. The project was bid with only base bid items. The project consists of the reconstruction of approximately 1,300 linear feet of roadway along Sunnyview Avenue and approximately 1,300 linear feet of roadway along Skyview Terrace in Friendswood, Texas. The bids for the total project are as follows:

	Contractor	Total Bid
1	Matula & Matula Construction, Inc.	\$755,351.60
2	AAA Asphalt Paving, Inc.	\$787,263.50
3	Metro City Construction, L.P.	\$788,200.27
4	R.W. Lucas Construction, LLC	\$843,630.00
5	Lazer Construction Co., Inc.	\$850,307.29
6	Conrad Construction, Co., Ltd.	\$930,135.60
7	James Construction Group, LLC	\$988,523.00
8	Total Contracting Limited	\$1,148,731.00

A copy of the bid tabulation is attached



Matula & Matula Construction, Inc. appears to be a responsible firm that should be capable of performing the specified work in a satisfactory manner. For these reasons, we recommend that Galveston County award the Sunnyview and Skyview Reconstruction Project to Matula & Matula Construction, Inc. for a total of \$755,351.60.

If you have any questions, please contact me.

Sincerely,

HDR | CLAUNCH & MILLER



Mr. Matthew Hanks, P E
Project Manager

ITEM	QUANTITY	UNIT	PRICE	TOTAL
TOTAL PAVING AND DRAINAGE ITEMS				

BID RESPONSE TABULATION
RECONSTRUCTION OF SUNNYVIEW & SKYVIEW STREETS
GALVESTON COUNTY, TEXAS

BID #· B111026
 OPEN: 01/25/2011
 2:00 PM

Item	Product Cod	Description	Quantity	Units	Vendor		Vendor		Vendor	
					704229	CONRAD CONSTRUCTION CO I	704323	AAA ASPHALT PAVING INC	712341	METRO CITY CONSTRUCTION
0001	92536	RECONSTRUCTION OF SUNNYVIEW & SKYVI STREETS BASE BID TOTAL	1 00	EA	Unit Price	Extended	Unit Price	Extended	Unit Price	Extended
					930,135 60	930,135 60	793,223 50	793,223 50	788,200 27	788,200 27
Total of all Items					930,135 60		793,223.50		788,200.27	

BID RESPONSE TABULATION

BID #: B111026
OPEN: 01/25/2011
2:00 PM

RECONSTRUCTION OF SUNNYVIEW & SKYVIEW STREETS GALVESTON COUNTY, TEXAS

Item	Product Cod	Description	Quantity	Units	Vendor: 712346 MATULA & MATULA CONSTRU		Vendor 712554 TOTAL CONTRACTING LIMITE		Vendor 712886 RYAN W. LUCAS	
					Unit Price	Extended	Unit Price	Extended	Unit Price	Extended
0001	92536	RECONSTRUCTION OF SUNNYVIEW & SKYVI STREETS BASE BID TOTAL	1 00	EA	756,550 40	756,550 40	1,153,231 00	1,153,231 00	843,630 00	843,630 00
Total of all Items					756,550.40		1,153,231.00		843,630.00	

BID RESPONSE TABULATION

BID #: B111026
 OPEN: 01/25/2011
 2:00 PM

RECONSTRUCTION OF SUNNYVIEW & SKYVIEW STREETS GALVESTON COUNTY, TEXAS

Item	Product Cod	Description	Quantity	Units	Vendor		Vendor:		Vendor	
					713080	JAMES CONSTRUCTION GROUP	713107	LAZER CONSTRUCTION COMP	Unit Price	Extended
0001	92536	RECONSTRUCTION OF SUNNYVIEW & SKYVIEW STREETS BASE BID TOTAL	1 00	EA	988,523 00	988,523 00	842,041 29	842,041.29	0 00	0 00
Total of all Items:					988,523.00		842,041.29		0.00	

BID NUMBER # B111026

BID PROPOSAL

The bidder hereby proposes to furnish all labor, material, equipment and incidentals for

SUNNYVIEW AND SKYVIEW RECONSTRUCTION

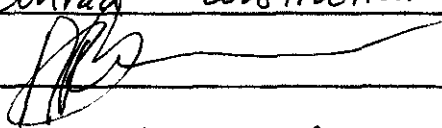
Enclosed is a Certified Check, Cashier's Check or Bid Bond in the sum of 5% of the greatest amount bid.

Bidder agrees to perform in accordance with the requirements of the contract documents in consideration of payment by the County of the prices in this proposal

IN CASE OF DISCREPANCY BETWEEN UNIT PRICES AND EXTENDED PRICES, UNIT PRICES WILL GOVERN.

This bid sheet must be completely filled out in ink or typewritten with any necessary supplemental information attached.

The undersigned hereby agrees to all of the foregoing terms and provisions and to all terms and provisions of the contract, if awarded, which includes all provisions of Sections I - VI of this bid package.

BIDDER Conrad Construction Co. / LTD.
SIGNATURE 
PRINT NAME Robert Barrow
TITLE Vice President
ADDRESS 13408 Emmett
CITY, STATE Houston, TX
ZIP 77041
TELEPHONE (713) 937-3081
FAX NO (713) 937-1172
DATE 1/25/11
TAX I.D. No. 76-0095532

addenda 1 receipt RB

ADDENDUM NO. 1

Date: January 21, 2011

PROJECT Sunnyview and Skyview Reconstruction

BID NO. B111026

BID DATE January 25, 2011, 2 00 P M

FROM Mr Matthew Hanks, P E.
Project Manager
4635 Southwest Freeway, Suite 1000
Houston, Texas 77027

To **Prospective Bidders and Interested Parties**

This addendum forms a part of the bidding documents and will be incorporated into the Contract Documents, as applicable. Insofar as the original Contract Documents, Specifications, and Drawings are inconsistent, this Addendum shall govern. Please acknowledge receipt of this Addendum on both copies of the Bid Proposal form, Section 00300 submitted to the City of Dickinson, TX. **FAILURE TO ACKNOWLEDGE RECEIPT OF ADDENDA ON THE BID PROPOSAL FORM MAY BE CAUSE FOR DISQUALIFICATION.**

CONTRACT DOCUMENTS.

The attached Bid Form sheets replace the original Bid Form sheets and shall be used for bidding purposes. Items in the Bid Proposal found under Supplemental Items have been removed and are now included in Part A Paving and Drainage Bid Items. Further, Item 36 and 37 have been added and are in bold text.

SPECIFICATIONS.

No field office will be required during construction of the project. Where areas under Specification 01520 - Temporary Field Office in the technical part of the specifications state that a field office is required, the requirements listed under the heading Field Office in the Galveston County Specifications and Contract Documents, Section III - Special Terms and Conditions shall apply.

CONSTRUCTION DRAWINGS:

N/A

END OF ADDENDUM NO. 1

Mr. Matthew Hanks, P E
Project Manager





CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

10/28/2010

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER John L. Wortham & Son, L P P O Box 1388 Houston, TX 77251-1388	CONTACT NAME	
	PHONE (A/C, No, Ext) 713-526-3366	FAX (A/C, No) 713-521-1951
INSURED Conrad Construction Co, Ltd Conrad Construction Co, Inc P O Box 841134 HOUSTON TX 77284	E-MAIL ADDRESS	
	INSURER(S) AFFORDING COVERAGE	
	INSURER A Travelers Lloyds Insurance Company	NAIC # 41262
	INSURER B Travelers Property Casualty Co of America	25674
	INSURER C Travelers Indemnity Company of CT	36170
	INSURER D	
INSURER E		
INSURER F		

COVERAGES **CERTIFICATE NUMBER** 8678307 **REVISION NUMBER**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR GEN'L AGGREGATE LIMIT APPLIES PER <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PROJECT <input type="checkbox"/> LOC			CO5460B98510	11/1/2010	11/1/2011	EACH OCCURRENCE \$ 1,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 5,000 PERSONAL & ADV INJURY \$ 1,000,000 GENERAL AGGREGATE \$ 2,000,000 PRODUCTS - COMP/OP AGG \$ 2,000,000
B	AUTOMOBILE LIABILITY <input checked="" type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> NON-OWNED AUTOS			BA8060C99110	11/1/2010	11/1/2011	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ \$ \$
C	<input checked="" type="checkbox"/> UMBRELLA LIAB <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> DED <input checked="" type="checkbox"/> RETENTION \$5,000 <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS-MADE			CUP5462B794TCT	11/1/2010	11/1/2011	EACH OCCURRENCE \$ 1,000,000 AGGREGATE \$ 1,000,000 \$ \$ \$
C	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes describe under DESCRIPTION OF OPERATIONS below Y/N <input checked="" type="checkbox"/> N N/A			UB8058C88A10	11/1/2010	11/1/2011	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER E L EACH ACCIDENT \$ 1,000,000 E L DISEASE - EA EMPLOYEE \$ 1,000,000 E L DISEASE POLICY LIMIT \$ 1,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

CERTIFICATE HOLDER For Bid Purposes Only	CANCELLATION SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS AUTHORIZED REPRESENTATIVE John L. Wortham & Son, L P <i>John L. Wortham & Son, L P</i>
--	--

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ACORD 25 (2010/05)

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CERTIFICATE ATTACHMENT

DATE ISSUED

10/28/2010

NAMED INSURED.

Conrad Construction Co , Ltd
Conrad Construction Co , Inc
P O Box 841134
HOUSTON TX 77284

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, WE WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER(S) NAMED ON THIS CERTIFICATE, EXCEPT FOR NON-PAYMENT OF PREMIUM OR ANY OTHER CIRCUMSTANCE PERMITTED BY STATE LAW OR POLICY CONDITIONS. FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON US

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO.	DESCRIPTION	UNIT	QUAN.	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
A) PAVING AND DRAINAGE BID ITEMS						
1	Mobilization, complete in place the sum of:	L.S.	1	one hundred seventy nine ^{thousand} AND <u>no</u> DOLLARS CENTS	\$ 179,000 -	\$ 179,000 -
2	Traffic Control, complete in place the sum of	MO	4	twenty six hundred AND <u>no</u> DOLLARS CENTS	\$ 2600. -	\$ 10,400. -
3	Milling of existing asphalt and base material, complete in place the sum of:	S.Y	6,700	four AND <u>no</u> DOLLARS CENTS	\$ 4 -	\$ 26,800. -
4	6" concrete curb, complete in place the sum of:	L.F	1,475	one AND <u>fifty</u> DOLLARS CENTS	\$ 1 ⁵⁰ / ₁₀₀ -	\$ 2212. ⁵⁰ / ₁₀₀ -
5	Re-Grade Roadside Ditches, complete in place the sum of	L.F	3,334	five AND <u>no</u> DOLLARS CENTS	\$ 5 -	\$ 16,670. -
6	Stabilized Construction Exit, complete in place the sum of	EA.	4	eighteen hundred AND <u>no</u> DOLLARS CENTS	\$ 1800 -	\$ 7200. -
7	Reinforced filter fabric barrier (for SWPPP), complete in place the sum of:	L.F	648	one AND <u>forty</u> DOLLARS CENTS	\$ 1 ⁴⁰ / ₁₀₀ -	\$ 907 ²⁰ / ₁₀₀ -
8	Inlet Protection Barrier, complete in place the sum of	EA	30	fifty six AND <u>no</u> DOLLARS CENTS	\$ 56 -	\$ 1680. -
9	Roadway excavation, complete in place the sum of:	C.Y	12,193	seven AND <u>forty</u> DOLLARS CENTS	\$ 7 ⁴⁰ / ₁₀₀ -	\$ 90,228. ²⁰ / ₁₀₀ -
10	4" Concrete Sidewalk with Ramps, complete in place the sum of:	S.Y	950	sixty two AND <u>seventy five</u> DOLLARS CENTS	\$ 62 ⁷⁵ / ₁₀₀ -	\$ 59,612. ⁵⁰ / ₁₀₀ -
11	6-in Reinforced Concrete Driveways including Subgrade, complete in place the sum of	S.Y	1,332	forty five AND <u>no</u> DOLLARS CENTS	\$ 45. -	\$ 59,940. -
12	8-in Reinforced Concrete Paving, complete in place the sum of:	S.Y	7,100	thirty six AND <u>seventy five</u> DOLLARS CENTS	\$ 36. ⁷⁵ / ₁₀₀ -	\$ 260,925. -
13	6-in Thick Lime Stabilized Subgrade including lime (6% lime), complete in place the sum of	S.Y.	7,716	five AND <u>thirty</u> DOLLARS CENTS	\$ 5 ³⁰ / ₁₀₀ -	\$ 40,894. ⁸⁰ / ₁₀₀ -
14	Pavement Headers, complete in place the sum of	L.F	371	seven AND <u>no</u> DOLLARS CENTS	\$ 7. -	\$ 2597 -

BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

ITEM NO.	DESCRIPTION	UNIT	QUAN.	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
15	5'x5' Type H-2 Inlet, complete in place the sum of	EA	3	twenty five hundred AND no CENTS	\$ 2500 -	\$ 7500. -
16	7'x5' Type H-2 Inlet, complete in place the sum of	EA	4	thirty one hundred forty five AND no CENTS	\$ 3145 -	\$ 12,580. -
17	Type A Inlet, complete in place the sum of	EA	6	sixteen hundred forty AND no CENTS	\$ 1630 -	\$ 9780. -
18	Remove and Re-Place State 2 of H-2 Inlet, complete in place the sum of	EA	1	fifteen hundred AND no CENTS	\$ 1500. -	\$ 1500. -
19	Adjust Existing Inlet & Manhole Rim & Cover, complete in place the sum of.	EA	5	five hundred AND no CENTS	\$ 500 -	\$ 2500. -
20	18" RCP Driveway Culvert, complete in place the sum of	LF	679	fifty AND ninety DOLLARS CENTS	\$ 50 90	\$ 34,561 10
21	24" RCP Driveway Culvert, complete in place the sum of	LF	30	sixty one AND seventy five DOLLARS CENTS	\$ 61. 75	\$ 1852. 50
22	18" RCP Storm Sewer, complete in place the sum of.	LF	20	fifty AND ninety DOLLARS CENTS	\$ 50. 90	\$ 1018. -
23	18" x 28" RCP Storm Sewer, complete in place the sum of	LF	92	seventy nine AND twenty five DOLLARS CENTS	\$ 79 25	\$ 7291. -
24	Re-construct Wood Pedestrian Bridge, complete in place the sum of	EA	2	twenty five hundred AND no CENTS	\$ 2500 -	\$ 5000 -
25	24" RCP Storm Sewer, complete in place the sum of	LF	298	fifty four AND eighty five DOLLARS CENTS	\$ 54 85	\$ 16,345 30
26	Project Identification Sign, complete in place the sum of	EA	1	seven hundred twenty eight AND no CENTS	\$ 728 -	\$ 728. -
27	Sodding, complete in place the sum of	S.Y.	7,250	three AND sixty five DOLLARS CENTS	\$ 3 65	\$ 26,462 50
28	Remove and Re-Place Fire Hydrant, complete in place the sum of	EA	1	five thousand AND no CENTS	\$ 5000 -	\$ 5000 -

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
29	Remove and Replace Inlet Top and Cover, complete in place the sum of:	EA	1	seven hundred fifty DOLLARS AND 10 CENTS	\$ 750. --	\$ 750. --
30	Brace, support and protect utility structures as per Utility Company's requirements, complete in place the sum of:	EA	2	fifteen hundred 20 CENTS	\$ 1500. --	\$ 3000. --
31	Adjust Water Lines, all sizes, complete in place the sum of:	L F	100	one hundred fifty DOLLARS AND 10 CENTS	\$ 150. --	\$ 15,000. --
32	Adjust sanitary sewer services, all sizes, the complete in place the sum of:	L F.	100	one hundred 10 CENTS	\$ 100. --	\$ 10,000. --
33	Wet condition bedding for storm sewer installation, all sizes, all depths, consisting of 12" crushed stone foundation, complete in place the sum of:	L F	100	twenty DOLLARS AND 10 CENTS	\$ 20. --	\$ 2000. --
34	Extra cement stabilized sand backfill, complete in place the sum of:	C Y	100	thirty five DOLLARS AND 10 CENTS	\$ 35. --	\$ 3500. --
35	Extra bank sand backfill, complete in place the sum of:	C Y	100	twelve DOLLARS AND 10 CENTS	\$ 12. --	\$ 1200. --
36	Replacement of small signs, complete in place the sum of:	EA.	4	two hundred fifty DOLLARS AND 20 CENTS	\$ 250. --	\$ 1000. --
37	Well pointing for storm sewer, complete in place the sum of:	L.F.	100	twenty five DOLLARS AND 10 CENTS	\$ 25. --	\$ 2500. --
TOTAL BID					\$ 930, 135. 60	

State of Texas Tax Statement of Materials and other charges

The cost of in-place materials to be
incorporated into the project

\$ 558,081.³⁶

The cost of labor, profit, materials
not in-place and all other charges

\$ 372,054.²⁴

TOTAL: (Must agree with bid)

\$ 930,135.⁶⁰

COPY

Proposal - Page 1 of 5

BID NUMBER # B111026

BID PROPOSAL

The bidder hereby proposes to furnish all labor, material, equipment and incidentals for

SUNNYVIEW AND SKYVIEW RECONSTRUCTION

Enclosed is a Certified Check, Cashier's Check or Bid Bond in the sum of 5% of the greatest amount bid.

Bidder agrees to perform in accordance with the requirements of the contract documents in consideration of payment by the County of the prices in this proposal

**IN CASE OF DISCREPANCY BETWEEN UNIT PRICES AND EXTENDED PRICES,
UNIT PRICES WILL GOVERN.**

This bid sheet must be completely filled out in ink or typewritten with any necessary supplemental information attached.

The undersigned hereby agrees to all of the foregoing terms and provisions and to all terms and provisions of the contract, if awarded, which includes all provisions of Sections I - VI of this bid package

BIDDER AAA Asphalt Paving Inc.
SIGNATURE Michael D. Hoffman
PRINT NAME Michael D. Hoffman
TITLE President
ADDRESS 10526 Tanner Rd.
CITY, STATE Houston TX
ZIP 77041
TELEPHONE 713-896-7373
FAX NO 713-896-8889
DATE Jan. 25, 2011
TAX ID No 760451285-9

Addendum #1 dated 1/21/11 acknowledged.

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
A) PAVING AND DRAINAGE BID ITEMS						
1	Mobilization, complete in place the sum of	L S	1	<u>Fourteen Thousand Two Hundred</u> AND <u>No</u> DOLLARS CENTS	\$ <u>14,200.00</u>	\$ <u>14,200.00</u>
2	Traffic Control, complete in place the sum of	MO	4	<u>One Thousand Five Hundred</u> AND <u>45</u> DOLLARS CENTS	\$ <u>1,500.00</u>	\$ <u>6,000.00</u>
3	Milling of existing asphalt and base material, complete in place the sum of	S Y	6,700	<u>Four</u> AND <u>no</u> DOLLARS CENTS	\$ <u>4.00</u>	\$ <u>26,800.00</u>
4	6" concrete curb, complete in place the sum of	L F	1,475	<u>Two</u> AND <u>Fifty</u> DOLLARS CENTS	\$ <u>2.50</u>	\$ <u>3,687.50</u>
5	Re-Grade Roadside Ditches, complete in place the sum of	L F	3,334	<u>Ten</u> AND <u>No</u> DOLLARS CENTS	\$ <u>10.00</u>	\$ <u>33,340.00</u>
6	Stabilized Construction Exit, complete in place the sum of	EA.	4	<u>One Thousand Four Hundred Fifty</u> AND <u>no</u> DOLLARS CENTS	\$ <u>1,415.00</u>	\$ <u>5,660.00</u>
7	Reinforced filter fabric barrier (for SWPPP), complete in place the sum of	L F.	648	<u>One</u> AND <u>Fifty</u> DOLLARS CENTS	\$ <u>1.50</u>	\$ <u>972.00</u>
8	Inlet Protection Barrier, complete in place the sum of	EA	30	<u>Fifty Eight</u> AND <u>no</u> DOLLARS CENTS	\$ <u>58.00</u>	\$ <u>1,740.00</u>
9	Roadway excavation, complete in place the sum of	C Y	12,193	<u>Eleven</u> AND <u>no</u> DOLLARS CENTS	\$ <u>11.00</u>	\$ <u>134,123.00</u>
10	4" Concrete Sidewalk with Ramps, complete in place the sum of	S Y	950	<u>Forty Five</u> AND <u>no</u> DOLLARS CENTS	\$ <u>45.00</u>	\$ <u>42,750.00</u>
11	6-in Reinforced Concrete Driveways including Subgrade, complete in place the sum of	S Y.	1,332	<u>Sixty Five</u> AND <u>no</u> DOLLARS CENTS	\$ <u>65.00</u>	\$ <u>86,580.00</u>
12	8-in Reinforced Concrete Paving, complete in place the sum of.	S Y	7,100	<u>Thirty Five</u> AND <u>no</u> DOLLARS CENTS	\$ <u>35.00</u>	\$ <u>248,500.00</u>
13	6-in Thick Lime Stabilized Subgrade including lime (6% lime), complete in place the sum of:	S Y	7,716	<u>Four</u> AND <u>Seventy Five</u> DOLLARS CENTS	\$ <u>4.75</u>	\$ <u>36,651.00</u>
14	Pavement Headers, complete in place the sum of	L F	371	<u>Ten</u> AND <u>no</u> DOLLARS CENTS	\$ <u>10.00</u>	\$ <u>3,710.00</u>

BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
15	5'x5' Type H-2 Inlet, complete in place the sum of	EA	3	Three Thousand AND no DOLLARS CENTS	\$ 3,000.00	\$ 9,000.00
16	7'x5' Type H-2 Inlet, complete in place the sum of	EA	4	Three Thousand One hundred AND no DOLLARS CENTS	\$ 3,100.00	\$ 12,400.00
17	Type A Inlet, complete in place the sum of.	EA	6	One Thousand Eight hundred AND no DOLLARS CENTS	\$ 1,800.00	\$ 10,800.00
18	Remove and Re-Place State 2 of H-2 Inlet, complete in place the sum of	EA	1	Six hundred Fifty AND no DOLLARS CENTS	\$ 650.00	\$ 650.00
19	Adjust Existing Inlet & Manhole Rim & Cover, complete in place the sum of	EA	5	Four hundred Twenty AND no DOLLARS CENTS	\$ 420.00	\$ 2,100.00
20	18" RCP Driveway Culvert, complete in place the sum of	L F	679	Forty Six AND no DOLLARS CENTS	\$ 46.00	\$ 31,234.00
21	24" RCP Driveway Culvert, complete in place the sum of	L F	30	Fifty One AND no DOLLARS CENTS	\$ 51.00	\$ 1,530.00
22	18" RCP Storm Sewer, complete in place the sum of	L F	20	Forty Seven AND no DOLLARS CENTS	\$ 47.00	\$ 940.00
23	18" x 28" RCP Storm Sewer, complete in place the sum of	L F.	92	Ninety Five AND no DOLLARS CENTS	\$ 95.00	\$ 8,740.00
24	Re-construct Wood Pedestrian Bridge, complete in place the sum of.	EA	2	One Thousand AND no DOLLARS CENTS	\$ 1,000.00	\$ 2,000.00
25	24" RCP Storm Sewer, complete in place the sum of	L F.	298	Thirty Two AND no DOLLARS CENTS	\$ 32.00	\$ 9,536.00
26	Project Identification Sign, complete in place the sum of	EA	1	Nine hundred Fifty AND no DOLLARS CENTS	\$ 950.00	\$ 950.00
27	Sodding, complete in place the sum of	S Y	7,250	Three AND no DOLLARS CENTS	\$ 3.20	\$ 23,200.00
28	Remove and Re-Place Fire Hydrant, complete in place the sum of	EA	1	One Thousand AND no DOLLARS CENTS	\$ 1,000.00	\$ 1,000.00

BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

ITEM NO	DESCRIPTION	UNIT	QUAN.	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
29	Remove and Replace Inlet Top and Cover, complete in place the sum of	EA	1	Six hundred Fifty AND no DOLLARS CENTS	\$ 650.00	\$ 650.00
30	Brace, support and protect utility structures as per Utility Company's requirements, complete in place the sum of	EA	2	Six hundred AND no DOLLARS CENTS	\$ 600.00	\$ 1,200.00
31	Adjust Water Lines, all sizes, complete in place the sum of	LF	100	Fifty Eight AND no DOLLARS CENTS	\$ 58.00	\$ 5,800.00
32	Adjust sanitary sewer services, all sizes, the complete in place the sum of	LF	100	Fifty Two AND no DOLLARS CENTS	\$ 52.00	\$ 5,200.00
33	Wet condition bedding for storm sewer installation, all sizes, all depths, consisting of 12" crushed stone foundation, complete in place the sum of	LF	100	Twenty Five AND no DOLLARS CENTS	\$ 25.00	\$ 2,500.00
34	Extra cement stabilized sand backfill, complete in place the sum of	CY	100	Thirty Eight AND no DOLLARS CENTS	\$ 38.00	\$ 3,800.00
35	Extra bank sand backfill, complete in place the sum of	CY	100	Thirty Six AND no DOLLARS CENTS	\$ 36.00	\$ 3,600.00
36	Replacement of small signs, complete in place the sum of	EA	4	Two hundred Eighty AND no DOLLARS CENTS	\$ 280.00	\$ 1,120.00
37	Well pointing for storm sewer, complete in place the sum of	L.F.	100	Forty Six AND no DOLLARS CENTS	\$ 46.00	\$ 4,600.00
TOTAL BID					\$ 793,233.50	

State of Texas Tax Statement of Materials and other charges:

The cost of in-place materials to be
incorporated into the project

\$ 265,576.01

The cost of labor, profit, materials
not in-place and all other charges

\$ 527,647.49

TOTAL. (Must agree with bid)

\$ 793,223.50

Proposal - Page 1 of 5

BID NUMBER # B111026

BID PROPOSAL

The bidder hereby proposes to furnish all labor, material, equipment and incidentals for
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

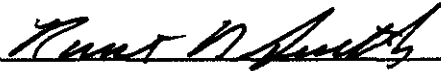
Enclosed is a Certified Check, Cashier's Check or Bid Bond in the sum of 5% of the greatest amount bid.

Bidder agrees to perform in accordance with the requirements of the contract documents in consideration of payment by the County of the prices in this proposal

**IN CASE OF DISCREPANCY BETWEEN UNIT PRICES AND EXTENDED PRICES,
UNIT PRICES WILL GOVERN.**

**This bid sheet must be completely filled out in ink or typewritten with any
necessary supplemental information attached.**

The undersigned hereby agrees to all of the foregoing terms and provisions and to all terms and provisions of the contract, if awarded, which includes all provisions of Sections I - VI of this bid package

BIDDER	<u>Metro City Construction, L.P.</u>
SIGNATURE	<u></u>
PRINT NAME	<u>Robert N. Smither</u>
TITLE	<u>Chief Estimator</u>
ADDRESS	<u>5715 Luce Street</u>
CITY, STATE	<u>Houston, Texas</u>
ZIP	<u>77087</u>
TELEPHONE	<u>713-943-0090</u>
FAX NO	<u>713-943-0092</u>
DATE	<u>1/25/2011</u>
TAX I.D. No.	<u>51-0446360</u>

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
A) PAVING AND DRAINAGE BID ITEMS						
1	Mobilization, complete in place the sum of	L S	1	Eighty Four Thousand AND No DOLLARS CENTS	\$ 84,000 00	\$ 84,000 00
2	Traffic Control, complete in place the sum of	MO	4	Twenty Four Hundred AND No DOLLARS CENTS	\$ 2,400 00	\$ 9,600 00
3	Milling of existing asphalt and base material, complete in place the sum of	S Y	6,700	Four AND No DOLLARS CENTS	\$ 4.00	\$ 26,800 00
4	6" concrete curb, complete in place the sum of	L F	1,475	Two AND Fifty DOLLARS CENTS	\$ 2 50	\$ 3,687 50
5	Re-Grade Roadside Ditches, complete in place the sum of	L F	3,334	Four AND No DOLLARS CENTS	\$ 4 00	\$ 13,336 00
6	Stabilized Construction Exit, complete in place the sum of	EA	4	Twelve Hundred Twenty Five AND No DOLLARS CENTS	\$ 1,225.00	\$ 4,900.00
7	Reinforced filter fabric barrier (for SWPPP), complete in place the sum of	L F	648	One AND Fifty DOLLARS CENTS	\$ 1 50	\$ 972 00
8	Inlet Protection Barrier, complete in place the sum of	EA	30	Forty Four AND No DOLLARS CENTS	\$ 44 00	\$ 1,320 00
9	Roadway excavation, complete in place the sum of	C Y	12,193	Seven AND Fifty Five DOLLARS CENTS	\$ 7.55	\$ 92,057.15
10	4" Concrete Sidewalk with Ramps, complete in place the sum of	S Y	950	Fifty One AND Seventy DOLLARS CENTS	\$ 51 70	\$ 49,115 00
11	6-in Reinforced Concrete Driveways including Subgrade, complete in place the sum of	S Y	1,332	Thirty Six AND Ninety One DOLLARS CENTS	\$ 36 91	\$ 49,164 12
12	8-in Reinforced Concrete Paving, complete in place the sum of	S Y	7,100	Thirty Nine AND Eighty Nine DOLLARS CENTS	\$ 39.89	\$ 283,219.00
13	6-in Thick Lime Stabilized Subgrade including lime (6% lime), complete in place the sum of	S Y	7,716	Four AND Seventy Five DOLLARS CENTS	\$ 4 75	\$ 36,651 00
14	Pavement Headers, complete in place the sum of	L F	371	Ten AND No DOLLARS CENTS	\$ 10 00	\$ 3,710 00

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
15	5'x5' Type H-2 Inlet, complete in place the sum of	EA	3	Twenty Seven Hundred AND No DOLLARS CENTS	\$ 2,700.00	\$ 8,100.00
16	7'x5' Type H-2 Inlet, complete in place the sum of	EA	4	Twenty Seven Hundred Seventy Five AND No DOLLARS CENTS	\$ 2,775.00	\$ 11,100.00
17	Type A Inlet, complete in place the sum of	EA	6	Fifteen Hundred Eighty AND No DOLLARS CENTS	\$ 1,580.00	\$ 9,480.00
18	Remove and Re-Place State 2 of H-2 Inlet, complete in place the sum of	EA	1	One Thousand Seventy AND No DOLLARS CENTS	\$ 1,070.00	\$ 1,070.00
19	Adjust Existing Inlet & Manhole Rim & Cover, complete in place the sum of	EA	5	Three Hundred AND No DOLLARS CENTS	\$ 300.00	\$ 1,500.00
20	18" RCP Driveway Culvert, complete in place the sum of	LF	679	Thirty Three AND No DOLLARS CENTS	\$ 33.00	\$ 22,407.00
21	24" RCP Driveway Culvert, complete in place the sum of	LF	30	Forty Five AND No DOLLARS CENTS	\$ 45.00	\$ 1,350.00
22	18" RCP Storm Sewer, complete in place the sum of	LF	20	Thirty Eight AND No DOLLARS CENTS	\$ 38.00	\$ 760.00
23	18" x 28" RCP Storm Sewer, complete in place the sum of	LF	92	Seventy Six AND No DOLLARS CENTS	\$ 76.00	\$ 6,992.00
24	Re-construct Wood Pedestrian Bridge, complete in place the sum of	EA	2	Seven Hundred Fifty DOLLARS AND No CENTS	\$ 750.00	\$ 1,500.00
25	24" RCP Storm Sewer, complete in place the sum of	LF	298	Fifty Four AND No DOLLARS CENTS	\$ 54.00	\$ 16,092.00
26	Project Identification Sign, complete in place the sum of	EA	1	Seven Hundred Twenty Five DOLLARS AND No CENTS	\$ 725.00	\$ 725.00
27	Sodding, complete in place the sum of	S.Y.	7,250	Three AND Seventy Five DOLLARS CENTS	\$ 3.75	\$ 27,187.50
28	Remove and Re-Place Fire Hydrant, complete in place the sum of	EA	1	Twenty Six Hundred AND No DOLLARS CENTS	\$ 2,600.00	\$ 2,600.00

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
29	Remove and Replace Inlet Top and Cover, complete in place the sum of	EA	1	Twenty One Hundred Five DOLLARS AND No CENTS	\$ 2,105.00	\$ 2,105.00
30	Brace, support and protect utility structures as per Utility Company's requirements, complete in place the sum of	EA	2	One Thousand DOLLARS AND No CENTS	\$ 1,000.00	\$ 1,000.00
31	Adjust Water Lines, all sizes, complete in place the sum of	L F	100	Thirty Five DOLLARS AND No CENTS	\$ 35.00	\$ 3,500.00
32	Adjust sanitary sewer services, all sizes, the complete in place the sum of	L F	100	Thirty Five DOLLARS AND No CENTS	\$ 35.00	\$ 3,500.00
33	Wet condition bedding for storm sewer installation, all sizes, all depths, consisting of 12" crushed stone foundation, complete in place the sum of	L F	100	Five DOLLARS AND No CENTS	5.00	500.00
34	Extra cement stabilized sand backfill, complete in place the sum of	C Y	100	Twenty Eight DOLLARS AND No CENTS	\$ 28.00	\$ 2,800.00
35	Extra bank sand backfill, complete in place the sum of	C Y	100	Ten DOLLARS AND No CENTS	\$ 10.00	\$ 1,000.00
36	Replacement of small signs, complete in place the sum of:	EA	4	Three Hundred Fifty DOLLARS AND No CENTS	\$ 350.00	\$ 1,400.00
37	Well pointing for storm sewer, complete in place the sum of	L F.	100	Twenty DOLLARS AND No CENTS	\$ 20.00	\$ 2,000.00
TOTAL BID					\$ 788,200.27	

State of Texas Tax Statement of Materials and other charges:

The cost of in-place materials to be incorporated into the project	\$ 410,000.00
The cost of labor, profit, materials not in-place and all other charges	\$ 378,200.27
TOTAL: (Must agree with bid)	\$ 788,200.27

BID NUMBER # BID# B111026

BID PROPOSAL

The bidder hereby proposes to furnish all labor, material, equipment and incidentals for

SUNNYVIEW AND SKYVIEW RECONSTRUCTION

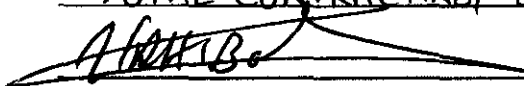
Enclosed is a Certified Check, Cashier's Check or Bid Bond in the sum of 5% of the greatest amount bid

Bidder agrees to perform in accordance with the requirements of the contract documents in consideration of payment by the County of the prices in this proposal

**IN CASE OF DISCREPANCY BETWEEN UNIT PRICES AND EXTENDED PRICES,
UNIT PRICES WILL GOVERN.**

**This bid sheet must be completely filled out in ink or typewritten with any
necessary supplemental information attached.**

The undersigned hereby agrees to all of the foregoing terms and provisions and to all terms and provisions of the contract, if awarded, which includes all provisions of Sections I - VI of this bid package

BIDDER	<u>TOTAL CONTRACTING LIMITED</u>
SIGNATURE	<u></u>
PRINT NAME	<u>BOUTROS G. MERHI</u>
TITLE	<u>GENERAL PARTNER</u>
ADDRESS	<u>11203 BEDFORD</u>
CITY, STATE	<u>HOUSTON, TEXAS</u>
ZIP	<u>77031</u>
TELEPHONE	<u>713-995-8595</u>
FAX NO	<u>713-995-8644</u>
DATE	<u>01-24-2011</u>
TAX ID No	<u>76-0626843</u>

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
A) PAVING AND DRAINAGE BID ITEMS						
1	Mobilization, complete in place the sum of	LS	1	Two Hundred and Twenty Five thousand AND 25/100 DOLLARS AND CENTS	\$ 225,000.00	\$ 225,000.00
2	Traffic Control, complete in place the sum of	MO	4	Five thousand AND 00/100 DOLLARS AND CENTS	\$ 5,000.00	\$ 20,000.00
3	Milling of existing asphalt and base material, complete in place the sum of	SY	6,700	Seven AND 00/100 DOLLARS AND CENTS	\$ 7.00	\$ 46,900.00
4	6" concrete curb complete in place the sum of	LF	1,475	Three AND Fifty DOLLARS AND CENTS	\$ 3.50	\$ 5,162.50
5	Re-Grade Roadside Ditches, complete in place the sum of	LF	3,334	Fifteen AND 00/100 DOLLARS AND CENTS	\$ 15.00	\$ 50,010.00
6	Stabilized Construction Exit complete in place the sum of	EA	4	Three Hundred and Fifty DOLLARS AND CENTS	\$ 350.00	\$ 1,400.00
7	Reinforced filter fabric barrier (for SWPPP), complete in place the sum of	LF	648	One AND 00/100 DOLLARS AND CENTS	\$ 1.00	\$ 648.00
8	Inlet Protection Barrier, complete in place the sum of	EA	30	Sixty AND 00/100 DOLLARS AND CENTS	\$ 60.00	\$ 1,800.00
9	Roadway excavation, complete in place the sum of	CY	12 193	Fifteen AND 00/100 DOLLARS AND CENTS	\$ 15.00	\$ 182,815.00
10	4" Concrete Sidewalk with Ramps, complete in place the sum of	SY	950	Twenty Seven AND Fifty DOLLARS AND CENTS	\$ 27.50	\$ 26,125.00
11	6-in Reinforced Concrete Driveways including Subgrade, complete in place the sum of	SY	1 332	Forty Five AND 00/100 DOLLARS AND CENTS	\$ 45.00	\$ 59,740.00
12	8-in Reinforced Concrete Paving, complete in place the sum of	SY	7,100	Thirty Five AND 00/100 DOLLARS AND CENTS	\$ 35.00	\$ 248,500.00
13	6-in Thick Lime Stabilized Subgrade including lime (6% lime), complete in place the sum of	SY	7,716	Ten AND Fifty DOLLARS AND CENTS	\$ 10.50	\$ 81,018.00
14	Pavement Headers, complete in place the sum of	LF	371	Fifteen AND 00/100 DOLLARS AND CENTS	\$ 15.00	\$ 5,565.00

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO	DESCRIPTION	UNIT	QUAN.	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
15	5'x5' Type H-2 Inlet, complete in place the sum of	EA	3	Five thousand and zero DOLLARS CENTS	\$ 5,000.00	\$ 15,000.00
16	7'x5' Type H-2 Inlet, complete in place the sum of	EA	4	Five thousand and zero DOLLARS CENTS	\$ 5,000.00	\$ 20,000.00
17	Type A Inlet, complete in place the sum of.	EA	6	Three thousand and zero DOLLARS CENTS	\$ 3,000.00	\$ 18,000.00
18	Remove and Re-Place State 2 of H-2 Inlet, complete in place the sum of	EA	1	Three thousand and five hundred DOLLARS CENTS	\$ 3,500.00	\$ 3,500.00
19	Adjust Existing Inlet & Manhole Rim & Cover, complete in place the sum of	EA	5	Two Hundred and fifty DOLLARS CENTS	\$ 250.00	\$ 1,250.00
20	18" RCP Driveway Culvert, complete in place the sum of	L F	679	Fifty Five DOLLARS CENTS	\$ 55.00	\$ 37,345.00
21	24" RCP Driveway Culvert, complete in place the sum of	L F	30	Sixty DOLLARS CENTS	\$ 60.00	\$ 1,800.00
22	18" RCP Storm Sewer, complete in place the sum of	L F	20	Fifty Five DOLLARS CENTS	\$ 55.00	\$ 1,100.00
23	18" x 28" RCP Storm Sewer, complete in place the sum of	L F	92	One Hundred and fifteen DOLLARS CENTS	\$ 115.00	\$ 10,580.00
24	Re-construct Wood Pedestrian Bridge, complete in place the sum of	EA	2	Two thousand and five hundred DOLLARS CENTS	\$ 2,500.00	\$ 5,000.00
25	24" RCP Storm Sewer, complete in place the sum of	L F	298	Sixty DOLLARS CENTS	\$ 60.00	\$ 17,880.00
26	Project Identification Sign, complete in place the sum of	EA	1	Eight Hundred and fifty DOLLARS CENTS	\$ 850.00	\$ 850.00
27	Sodding, complete in place the sum of	S Y	7,250	Three AND Twenty Five DOLLARS CENTS	\$ 3.25	\$ 23,562.50
28	Remove and Re-Place Fire Hydrant, complete in place the sum of	EA	1	Two thousand and five hundred DOLLARS CENTS	\$ 2,500.00	\$ 2,500.00

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
29	Remove and Replace Inlet Top and Cover, complete in place the sum of	EA	1	<u>TWO THOUSAND AND ZERO</u> DOLLARS AND <u>ZERO</u> CENTS	\$ 2,000.00	\$ 2,000.00
30	Brace, support and protect utility structures as per Utility Company's requirements, complete in place the sum of	EA	2	<u>ONE THOUSAND AND FIVE HUNDRED</u> DOLLARS AND <u>ZERO</u> CENTS	\$ 1,500.00	\$ 7,500.00
31	Adjust Water Lines, all sizes, complete in place the sum of	L F	100	<u>ONE HUNDRED AND ZERO</u> DOLLARS AND <u>ZERO</u> CENTS	\$ 100.00	\$ 10,000.00
32	Adjust sanitary sewer services, all sizes, the complete in place the sum of	L F	100	<u>ONE HUNDRED AND ZERO</u> DOLLARS AND <u>ZERO</u> CENTS	\$ 100.00	\$ 10,000.00
33	Wet condition bedding for storm sewer installation, all sizes, all depths, consisting of 12" crushed stone foundation, complete in place the sum of	L F	100	<u>FIFTEEN AND ZERO</u> DOLLARS AND <u>ZERO</u> CENTS	\$ 15.00	\$ 1,500.00
34	Extra cement stabilized sand backfill, complete in place the sum of	C Y	100	<u>TWENTY FIVE AND ZERO</u> DOLLARS AND <u>ZERO</u> CENTS	\$ 25.00	\$ 2,500.00
35	Extra bank sand backfill, complete in place the sum of	C Y	100	<u>TWENTY FIVE AND ZERO</u> DOLLARS AND <u>ZERO</u> CENTS	\$ 25.00	\$ 2,500.00
36	Replacement of small signs, complete in place the sum of	EA	4	<u>THREE HUNDRED AND FIFTY</u> DOLLARS AND <u>ZERO</u> CENTS	\$ 350.00	\$ 1,400.00
37	Well pointing for storm sewer, complete in place the sum of:	L.F	100	<u>TWENTY FIVE AND ZERO</u> DOLLARS AND <u>ZERO</u> CENTS	\$ 25.00	\$ 2,500.00
TOTAL BID					\$ 1,153,231.00	

State of Texas Tax Statement of Materials and other charges

The cost of in-place materials to be
incorporated into the project.

\$ 500,000.00

The cost of labor, profit, materials
not in-place and all other charges

\$ 653,231.00

TOTAL (Must agree with bid)

\$ 1,153,231.00

BID NUMBER # B111026

BID PROPOSAL

The bidder hereby proposes to furnish all labor, material, equipment and incidentals for

SUNNYVIEW AND SKYVIEW RECONSTRUCTION

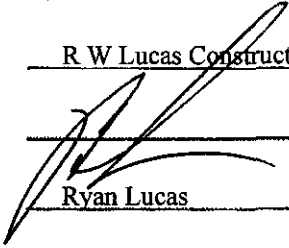
Enclosed is a Certified Check, Cashier's Check or Bid Bond in the sum of 5% of the greatest amount bid.

Bidder agrees to perform in accordance with the requirements of the contract documents in consideration of payment by the County of the prices in this proposal.

**IN CASE OF DISCREPANCY BETWEEN UNIT PRICES AND EXTENDED PRICES,
UNIT PRICES WILL GOVERN.**

**This bid sheet must be completely filled out in Ink or typewritten with any
necessary supplemental information attached.**

The undersigned hereby agrees to all of the foregoing terms and provisions and to all terms and provisions of the contract, if awarded, which includes all provisions of Sections I - VI of this bid package.

BIDDER	<u>R W Lucas Construction, LLC</u>
SIGNATURE	
PRINT NAME	<u>Ryan Lucas</u>
TITLE	<u>President</u>
ADDRESS	<u>551 C League City Parkway</u>
CITY, STATE	<u>League City, Texas</u>
ZIP	<u>77573</u>
TELEPHONE	<u>281-316-9990</u>
FAX NO	<u>281-316-6087</u>
DATE	<u>January 25, 2011</u>
TAX I.D. No.	<u>27-3076189</u>
ADDENDUM	<u>Addendum 1, January 21, 2011</u>

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO.	DESCRIPTION	UNIT	QUAN.	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
A) PAVING AND DRAINAGE BID ITEMS						
1	Mobilization, complete in place the sum of	L.S.	1	Twenty Six Thousand AND no DOLLARS CENTS	\$26,000 00	\$ 26,000 00
2	Traffic Control, complete in place the sum of:	MO	4	Ten Thousand AND no DOLLARS CENTS	\$ 10,000 00	\$ 40,000 00
3	Milling of existing asphalt and base material, complete in place the sum of:	S.Y.	6,700	Nine AND no DOLLARS CENTS	\$ 9 00	\$ 60,300 00
4	6" concrete curb, complete in place the sum of:	L.F.	1,475	Three AND no DOLLARS CENTS	\$ 3 00	\$ 4,425 00
5	Re-Grade Roadside Ditches, complete in place the sum of:	L F	3,334	Five AND no DOLLARS CENTS	\$ 5 00	\$ 16,670 00
6	Stabilized Construction Exft, complete in place the sum of:	EA.	4	Two Thousand AND no DOLLARS CENTS	\$2,000 00	\$ 8,000 00
7	Reinforced filter fabric barrier (for SWPPP), complete in place the sum of:	L.F.	648	Two AND fifty DOLLARS CENTS	\$ 2 50	\$ 1,620 00
8	Inlet Protection Barrier, complete in place the sum of:	EA.	30	One Hundred AND no DOLLARS CENTS	\$100 00	\$ 3,000 00
9	Roadway excavation, complete in place the sum of:	C Y.	12,193	Ten AND no DOLLARS CENTS	\$10.00	\$121,930 00
10	4" Concrete Sidewalk with Ramps, complete in place the sum of:	S Y.	950	Forty AND no DOLLARS CENTS	\$40 00	\$ 38,000 00
11	6-in. Reinforced Concrete Driveways including Subgrade, complete in place the sum of	S Y.	1,332	Thirty Six AND no DOLLARS CENTS	\$36 00	\$47,952 00
12	8-in. Reinforced Concrete Paving, complete in place the sum of:	S Y	7,100	Forty AND no DOLLARS CENTS	\$40 00	\$ 284,000 00
13	6-in Thick Lime Stabilized Subgrade including lime (6% lime), complete in place the sum of:	S.Y.	7,716	Four AND fifty DOLLARS CENTS	\$4 50	\$ 34,722 00
14	Pavement Headers, complete in place the sum of	L F.	371	Six AND no DOLLARS CENTS	\$6 00	\$ 2,226 00

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO.	DESCRIPTION	UNIT	QUAN.	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
15	5'x5' Type H-2 Inlet, complete in place the sum of:	EA.	3	Three Thousand AND no DOLLARS CENTS	\$3,000 00	\$9,000 00
16	7'x5' Type H-2 Inlet, complete in place the sum of:	EA.	4	Four Thousand AND no DOLLARS CENTS	\$4,000 00	\$16,000 00
17	Type A Inlet, complete in place the sum of:	EA.	6	Two Thousand AND no DOLLARS CENTS	\$2,000 00	\$12,000 00
18	Remove and Re-Place State 2 of H-2 Inlet, complete in place the sum of:	EA.	1	Two Thousand AND no DOLLARS CENTS	\$2,000 00	\$2,000 00
19	Adjust Existing Inlet & Manhole Rim & Cover, complete in place the sum of:	EA.	5	One Thousand AND no DOLLARS CENTS	\$1,000 00	\$5,000 00
20	18" RCP Driveway Culvert, complete in place the sum of:	L.F.	679	Forty Five AND no DOLLARS CENTS	\$45 00	\$30,555 00
21	24" RCP Driveway Culvert, complete in place the sum of:	L.F.	30	Sixty AND no DOLLARS CENTS	\$60 00	\$1,800 00
22	18" RCP Storm Sewer, complete in place the sum of:	L.F.	20	Forty Five AND no DOLLARS CENTS	\$45 00	\$900 00
23	18" x 28" RCP Storm Sewer, complete in place the sum of:	L.F.	92	One Hundred AND no DOLLARS CENTS	\$100 00	\$9,200 00
24	Re-construct Wood Pedestrian Bridge, complete in place the sum of:	EA.	2	One Thousand Five Hundred AND no DOLLARS CENTS	\$1,500 00	\$3,000 00
25	24" RCP Storm Sewer, complete in place the sum of:	L.F.	298	Sixty AND no DOLLARS CENTS	\$60 00	\$17,880 00
26	Project Identification Sign, complete in place the sum of:	EA.	1	One Thousand AND no DOLLARS CENTS	\$1,000 00	\$1,000 00
27	Sodding, complete in place the sum of:	S.Y.	7,250	Three AND no DOLLARS CENTS	\$3.00	\$21,750 00
28	Remove and Re-Place Fire Hydrant, complete in place the sum of:	EA.	1	Three Thousand AND no DOLLARS CENTS	\$3,000 00	\$3,000 00

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO.	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
29	Remove and Replace Inlet Top and Cover, complete in place the sum of:	EA	1	One Thousand Five Hundred _____ DOLLARS AND _____ no _____ CENTS	\$ 1,500 00	\$ 1,500 00
30	Brace, support and protect utility structures as per Utility Company's requirements, complete in place the sum of:	EA	2	One Thousand _____ DOLLARS AND _____ no _____ CENTS	\$ 1,000 00	\$ 2,000 00
31	Adjust Water Lines, all sizes, complete in place the sum of	L.F.	100	Fifty _____ DOLLARS AND _____ no _____ CENTS	\$ 50 00	\$ 5,000 00
32	Adjust sanitary sewer services, all sizes, the complete in place the sum of:	L.F.	100	Thirty Five _____ DOLLARS AND _____ no _____ CENTS	\$ 35 00	\$ 3,500 00
33	Wet condition bedding for storm sewer installation, all sizes, all depths, consisting of 12" crushed stone foundation, complete in place the sum of:	L.F.	100	Fifteen _____ DOLLARS AND _____ no _____ CENTS	\$ 15 00	\$ 1,500 00
34	Extra cement stabilized sand backfill, complete in place the sum of	C.Y.	100	Thirty _____ DOLLARS AND _____ no _____ CENTS	\$ 30 00	\$ 3,000 00
35	Extra bank sand backfill, complete in place the sum of:	C.Y.	100	Fifteen _____ DOLLARS AND _____ no _____ CENTS	\$ 15 00	\$ 1,500 00
36	Replacement of small signs, complete in place the sum of:	EA	4	Three Hundred _____ DOLLARS AND _____ no _____ CENTS	\$ 300 00	\$ 1,200 00
37	Well pointing for storm sewer, complete in place the sum of:	L.F.	100	Twenty Five _____ DOLLARS AND _____ no _____ CENTS	\$ 25 00	\$ 2,500 00
TOTAL BID					\$ 843,630 00	

State of Texas Tax Statement of Materials and other charges:

The cost of in-place materials to be

incorporated into the project

\$ 310,300 00

The cost of labor, profit, materials

not in-place and all other charges

\$ 533,330 00

TOTAL: (Must agree with bid)

\$ 843,630.00

Proposal - Page 1 of 5

BID NUMBER # B 1110026

BID PROPOSAL

The bidder hereby proposes to furnish all labor, material, equipment and incidentals for:

SUNNYVIEW AND SKYVIEW RECONSTRUCTION

Enclosed is a Certified Check, Cashier's Check or Bid Bond in the sum of 5% of the greatest amount bid.

Bidder agrees to perform in accordance with the requirements of the contract documents in consideration of payment by the County of the prices in this proposal.

**IN CASE OF DISCREPANCY BETWEEN UNIT PRICES AND EXTENDED PRICES,
UNIT PRICES WILL GOVERN.**

This bid sheet must be completely filled out in ink or typewritten with any necessary supplemental information attached.

The undersigned hereby agrees to all of the foregoing terms and provisions and to all terms and provisions of the contract, if awarded, which includes all provisions of Sections I - VI of this bid package.

BIDDER

James Construction Group, LLC

SIGNATURE

[Signature]

PRINT NAME

Will Cravens

TITLE

Vice President

ADDRESS

11603 Windfern, Suite C

CITY, STATE

Houston, Tx

ZIP

77064

TELEPHONE

713-300-1530

FAX NO

713-300-1531

DATE

1-25-11

TAX I.D. No.

383424695

Bid Proposal -
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

ITEM NO.	DESCRIPTION	UNIT	QUAN.	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
A) PAVING AND DRAINAGE BID ITEMS						
1	Mobilization, complete in place the sum of	L.S.	1	forty five thousand AND no DOLLARS CENTS	\$ 45000 ⁰⁰	\$ 45000 ⁰⁰
2	Traffic Control, complete in place the sum of	MO	4	five thousand five hundred AND no DOLLARS CENTS	\$ 5500 ⁰⁰	\$ 22000 ⁰⁰
3	Milling of existing asphalt and base material, complete in place the sum of:	S.Y.	6,700	fifteen AND no DOLLARS CENTS	\$ 15 ⁰⁰	\$ 100500 ⁰⁰
4	6" concrete curb, complete in place the sum of:	L.F.	1,475	two AND no DOLLARS CENTS	\$ 2 ⁰⁰	\$ 2950 ⁰⁰
5	Re-Grade Roadside Ditches, complete in place the sum of:	L.F.	3,334	four AND no DOLLARS CENTS	\$ 4 ⁰⁰	\$ 13336 ⁰⁰
6	Stabilized Construction Exit, complete in place the sum of:	EA	4	one thousand AND no DOLLARS CENTS	\$ 1000 ⁰⁰	\$ 4000 ⁰⁰
7	Reinforced filter fabric barrier (for SWPPP), complete in place the sum of:	L.F.	648	one AND fifty DOLLARS CENTS	\$ 1.50	\$ 972 ⁰⁰
8	Inlet Protection Barrier, complete in place the sum of:	EA	30	sixty AND no DOLLARS CENTS	\$ 60 ⁰⁰	\$ 1800 ⁰⁰
9	Roadway excavation, complete in place the sum of:	C.Y.	12,193	eleven AND no DOLLARS CENTS	\$ 11 ⁰⁰	\$ 134123 ⁰⁰
10	4" Concrete Sidewalk with Ramps, complete in place the sum of:	S.Y.	950	fifty two AND no DOLLARS CENTS	\$ 52 ⁰⁰	\$ 49400 ⁰⁰
11	6-in. Reinforced Concrete Driveways including Subgrade, complete in place the sum of	S.Y.	1,332	fifty AND no DOLLARS CENTS	\$ 50 ⁰⁰	\$ 66600 ⁰⁰
12	8-in. Reinforced Concrete Paving, complete in place the sum of	S.Y.	7,100	forty three AND no DOLLARS CENTS	\$ 43 ⁰⁰	\$ 305300 ⁰⁰
13	6-in Thick Lime Stabilized Subgrade including lime (6% lime), complete in place the sum of:	S.Y.	7,716	nine fifty AND no DOLLARS CENTS	\$ 9.50	\$ 73302 ⁰⁰
14	Pavement Headers, complete in place the sum of:	L.F.	371	ten AND no DOLLARS CENTS	\$ 10 ⁰⁰	\$ 3710 ⁰⁰

Bid Proposal -
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

ITEM NO.	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
15	5'x5' Type H-2 Inlet, complete in place the sum of:	EA.	3	two thousand three hundred AND NO DOLLARS CENTS	\$ 2,300.00	\$ 6,900.00
16	7'x5' Type H-2 Inlet, complete in place the sum of:	EA.	4	two thousand five hundred AND NO DOLLARS CENTS	\$ 2,500.00	\$ 10,000.00
17	Type A Inlet, complete in place the sum of	EA.	6	one thousand two hundred AND NO DOLLARS CENTS	\$ 1,200.00	\$ 7,200.00
18	Remove and Re-Place State 2 of H-2 Inlet, complete in place the sum of:	EA.	1	one thousand five hundred AND NO DOLLARS CENTS	\$ 1,500.00	\$ 1,500.00
19	Adjust Existing Inlet & Manhole Rim & Cover, complete in place the sum of:	EA.	5	Seven hundred AND NO DOLLARS CENTS	\$ 700.00	\$ 3,500.00
20	18" RCP Driveway Culvert, complete in place the sum of:	L.F.	679	Seventy one AND NO DOLLARS CENTS	\$ 71.00	\$ 48,209.00
21	24" RCP Driveway Culvert, complete in place the sum of:	L.F.	30	eighty three AND NO DOLLARS CENTS	\$ 83.00	\$ 2,490.00
22	18" RCP Storm Sewer, complete in place the sum of	L.F.	20	Seventy five AND NO DOLLARS CENTS	\$ 75.00	\$ 1,500.00
23	18" x 28" RCP Storm Sewer, complete in place the sum of:	L.F.	92	one hundred AND NO DOLLARS CENTS	\$ 100.00	\$ 9,200.00
24	Re-construct Wood Pedestrian Bridge, complete in place the sum of:	EA.	2	three thousand AND NO DOLLARS CENTS	\$ 3,000.00	\$ 6,000.00
25	24" RCP Storm Sewer, complete in place the sum of:	L.F.	298	Seven hundred AND NO DOLLARS CENTS	\$ 72.00	\$ 21,456.00
26	Project Identification Sign, complete in place the sum of:	EA.	1	eight hundred AND NO DOLLARS CENTS	\$ 800.00	\$ 800.00
27	Sodding, complete in place the sum of:	S.Y.	7,250	three ten AND NO DOLLARS CENTS	\$ 3.10	\$ 22,475.00
28	Remove and Re-Place Fire Hydrant, complete in place the sum of:	EA.	1	two thousand two hundred AND NO DOLLARS CENTS	\$ 2,200.00	\$ 2,200.00

Bid Proposal -
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

ITEM NO.	DESCRIPTION	UNIT	QUAN.	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
29	Remove and Replace Inlet Top and Cover, complete in place the sum of	EA.	1	one thousand five hundred AND NO DOLLARS CENTS	\$ 1500.00	\$ 1500.00
30	Brace, support and protect utility structures as per Utility Company's requirements, complete in place the sum of	EA	2	one thousand five hundred AND NO DOLLARS CENTS	\$ 1500.00	\$ 3000.00
31	Adjust Water Lines, all sizes, complete in place the sum of:	L.F.	100	thirty five AND NO DOLLARS CENTS	\$ 35.00	\$ 3500.00
32	Adjust sanitary sewer services, all sizes, the complete in place the sum of:	L.F.	100	five AND NO DOLLARS CENTS	\$ 50.00	\$ 5000.00
33	Wet condition bedding for storm sewer installation, all sizes, all depths, consisting of 12" crushed stone foundation, complete in place the sum of:	L.F.	100	fifteen AND NO DOLLARS CENTS	\$ 15.00	\$ 1500.00
34	Extra cement stabilized sand backfill, complete in place the sum of:	C.Y.	100	twenty five AND NO DOLLARS CENTS	\$ 25.00	\$ 2500.00
35	Extra bank sand backfill, complete in place the sum of:	C Y	100	twelve AND NO DOLLARS CENTS	\$ 12.00	\$ 1200.00
36	Replacement of small signs, complete in place the sum of:	EA.	4	three hundred fifty AND NO DOLLARS CENTS	\$ 350.00	\$ 1400.00
37	Well pointing for storm sewer, complete in place the sum of:	L.F.	100	twenty five AND NO DOLLARS CENTS	\$ 25.00	\$ 2500.00
TOTAL BID					\$ 988523.00	

Proposal -- Page 5 of 5

State of Texas Tax Statement of Materials and other charges:

The cost of in-place materials to be
incorporated into the project

\$ 564,300.00

The cost of labor, profit, materials
not in-place and all other charges

\$ 424,223.00

TOTAL: (Must agree with bid)

\$ 988,523.00

Proposal - Page 1 of 5

BID NUMBER # B111026

BID PROPOSAL

The bidder hereby proposes to furnish all labor, material, equipment and incidentals for
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

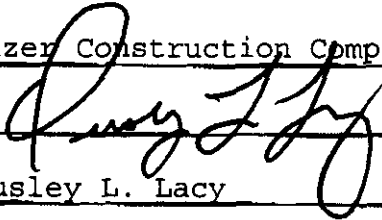
Enclosed is a Certified Check, Cashier's Check or Bid Bond in the sum of 5% of the greatest amount bid.

Bidder agrees to perform in accordance with the requirements of the contract documents in consideration of payment by the County of the prices in this proposal.

**IN CASE OF DISCREPANCY BETWEEN UNIT PRICES AND EXTENDED PRICES,
UNIT PRICES WILL GOVERN.**

**This bid sheet must be completely filled out in ink or typewritten with any
necessary supplemental information attached.**

The undersigned hereby agrees to all of the foregoing terms and provisions and to all terms and provisions of the contract, if awarded, which includes all provisions of Sections I - VI of this bid package.

BIDDER	<u>Lazer Construction Company, Inc.</u>
SIGNATURE	
PRINT NAME	<u>Ousley L. Lacy</u>
TITLE	<u>President</u>
ADDRESS	<u>3405 Almeda Genoa Road</u>
CITY, STATE	<u>Houston, Texas</u>
ZIP	<u>77047</u>
TELEPHONE	<u>(713) 733-6340</u>
FAX NO	<u>(713) 733-6539</u>
DATE	<u>January 25, 2011</u>
TAX I.D. No.	<u>76-03848114</u>

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
A) PAVING AND DRAINAGE BID ITEMS						
1	Mobilization, complete in place the sum of:	L S	1	Thirty-six thousand one hundred eighty-two AND forty-two DOLLARS CENTS	\$36,182.42	\$36,182.42
2	Traffic Control, complete in place the sum of	MO	4	Thirty-five thousand five hundred seventy-two AND forty-eight DOLLARS CENTS	\$32,572.48	\$130,289.92
3	Milling of existing asphalt and base material, complete in place the sum of	S Y	6,700	One AND forty-two DOLLARS CENTS	\$1.42	\$9,514.00
4	6" concrete curb, complete in place the sum of:	L F.	1,475	Three AND ninety DOLLARS CENTS	\$3.90	\$5,752.00
5	Re-Grade Roadside Ditches, complete in place the sum of:	L F	3,334	Eight AND three DOLLARS CENTS	\$8.03	\$26,772.02
6	Stabilized Construction Exit, complete in place the sum of	EA	4	One thousand five AND zero DOLLARS CENTS	\$1,500.00	\$6,000.00
7	Reinforced filter fabric barrier (for SWPPP), complete in place the sum of	L F	648	One AND fifty-one DOLLARS CENTS	\$1.51	\$978.48
8	Inlet Protection Barrier, complete in place the sum of	EA	30	Sixty AND thirty-one DOLLARS CENTS	\$60.31	\$1,809.30
9	Roadway excavation, complete in place the sum of	C Y	12,183	Five AND thirteen DOLLARS CENTS	\$5.13	\$62,550.09
10	4" Concrete Sidewalk with Ramps, complete in place the sum of:	S Y.	950	Forty-two AND sixty-seven DOLLARS CENTS	\$42.67	\$40,536.50
11	6-in Reinforced Concrete Driveways including Subgrade, complete in place the sum of:	S.Y	1,332	Forty-eight AND seventy-one DOLLARS CENTS	\$48.71	\$64,881.72
12	8-in Reinforced Concrete Paving, complete in place the sum of	S Y.	7,100	Thirty-six AND twelve DOLLARS CENTS	\$36.12	\$256,452.00
13	6-in Thick Lime Stabilized Subgrade including lime (6% lime), complete in place the sum of.	S.Y	7,716	Five AND seven DOLLARS CENTS	\$5.07	\$39,120.12
14	Pavement Headers, complete in place the sum of.	L F	371	Ten AND seventy-six DOLLARS CENTS	\$10.76	\$3,991.96

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO	DESCRIPTION	UNIT	QUAN.	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
15	5'x5' Type H-2 Inlet, complete in place the sum of.	EA	3	Two thousand three hundred ten AND ninety-eight DOLLARS CENTS	\$2,310.98	\$6,932.94
16	7'x5' Type H-2 Inlet, complete in place the sum of	EA	4	Three thousand four AND forty-eight DOLLARS CENTS	\$3,004.48	\$12,017.92
17	Type A Inlet, complete in place the sum of	EA	6	One thousand three hundred sixty-one AND forty-nine DOLLARS CENTS	\$1,361.49	\$8,168.94
18	Remove and Re-Place State 2 of H-2 Inlet, complete in place the sum of	EA	1	Two thousand two hundred seventy-nine AND CENTS	\$2,279.00	\$2,279.00
19	Adjust Existing Inlet & Manhole Rim & Cover, complete in place the sum of.	EA	5	Five hundred and two AND seventy-three DOLLARS CENTS	\$502.73	\$2,513.65
20	18" RCP Onrway Culvert, complete in place the sum of	L F	679	Thirty-six AND twenty-one DOLLARS CENTS	\$36.21	\$24,586.59
21	24" RCP Onrway Culvert, complete in place the sum of	L F.	30	Forty-five AND two DOLLARS CENTS	\$45.02	\$1,350.60
22	18" RCP Storm Sewer, complete in place the sum of	L.F.	20	Thirty-six AND thirty-nine DOLLARS CENTS	\$36.39	\$727.80
23	18" x 28" RCP Storm Sewer, complete in place the sum of	L.F	92	Seventy-seven AND thirty-six DOLLARS CENTS	\$77.36	\$7,117.12
24	Re-construct Wood Pedestrian Bridge, complete in place the sum of:	EA	2	One thousand eight hundred nine AND thirteen DOLLARS CENTS	\$1,809.13	\$3,618.26
25	24" RCP Storm Sewer, complete in place the sum of	L F	298	Forty-two AND fifty-three DOLLARS CENTS	\$42.53	\$12,673.94
26	Project Identification Sign, complete in place the sum of.	EA	1	Seven hundred twenty-four AND zero DOLLARS CENTS	\$724.00	\$724.00
27	Sodding, complete in place the sum of.	S Y	7,250	Six AND Forty-seven DOLLARS CENTS	\$6.47	\$46,907.50
28	Remove and Re-Place Fire Hydrant, complete in place the sum of	EA.	1	Three thousand six hundred sixty-seven AND zero DOLLARS CENTS	\$3,667.00	\$3,667.00

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
29	Remove and Replace Inlet Top and Cover, complete in place the sum of	EA	1	One thousand AND zero DOLLARS CENTS	\$ 1,000 00	\$ 1,000 00
30	Brace, support and protect utility structures as per Utility Company's requirements, complete in place the sum of:	EA	2	Three hundred fifty AND zero DOLLARS CENTS	\$ 350 00	\$ 700 00
31	Adjust Water Lines, all sizes, complete in place the sum of:	L.F.	100	Eighty-one AND forty-nine DOLLARS CENTS	\$ 81 49	\$ 8,149 00
32	Adjust sanitary sewer services, all sizes, the complete in place the sum of:	L.F.	100	Fifty-eight AND seventy-six DOLLARS CENTS	\$ 58 76	\$ 5,876.00
33	Wet condition bedding for storm sewer installation, all sizes, all depths, consisting of 12" crushed stone foundation, complete in place the sum of:	L.F.	100	Seventeen AND thirty-five DOLLARS CENTS	\$ 17 35	\$ 1,735 00
34	Extra cement stabilized sand backfill, complete in place the sum of	C.Y.	100	Twenty AND zero DOLLARS CENTS	\$ 20.00	\$ 2,000.00
35	Extra bank sand backfill, complete in place the sum of	C.Y.	100	Twenty-one AND five DOLLARS CENTS	\$ 21 05	\$ 2,105 00
36	Replacement of small signs, complete in place the sum of:	EA.	4	Ninety AND zero DOLLARS CENTS	\$ 90 00	\$ 360.00
37	Well pointing for storm sewer, complete in place the sum of:	L.F.	100	Twenty AND zero DOLLARS CENTS	\$ 20.00	\$ 2,000 00
TOTAL BID					\$ 842,041 29	

Proposal -- Page 5 of 5

State of Texas Tax Statement of Materials and other charges:

The cost of in-place materials to be
incorporated into the project

\$ 313,931.00

The cost of labor, profit, materials
not in-place and all other charges

\$ 528,110.29

TOTAL (Must agree with bid)

\$ 842,041.29

THE COUNTY OF
GALVESTON
Office of the County Engineer
722 MOODY, 1ST FLOOR
GALVESTON, TX 77550
(409) 770-5399 (409) 770-5549 (281) 316-8300
FAX (409) 770-5559

Transmittal

To: Patricia Grady

From: Mike Fitzgerald



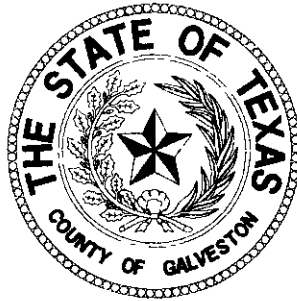
Date: March 21, 2011

Re: Sunnyview and Skyview Reconstruction Project

Cc: Dwight Sullivan

On February 9, 2011 the Commissioners' Court (agenda item no. 7)
awarded the above referenced project

Please have the Judge sign all four contracts in the place indicated
Please let me know when they are ready and we will pick them up and
deliver them to the County Clerk.



COUNTY OF GALVESTON

SPECIFICATIONS AND CONTRACT DOCUMENTS

SUNNYVIEW AND SKYVIEW RECONSTRUCTION

ADDENDUM NO. 1

Date. January 21, 2011

PROJECT Sunnyview and Skyview Reconstruction

BID NO.. B111026

BID DATE January 25, 2011, 2 00 P M

FROM Mr Matthew Hanks, P E
Project Manager
4635 Southwest Freeway, Suite 1000
Houston, Texas 77027

To **Prospective Bidders and Interested Parties**

This addendum forms a part of the bidding documents and will be incorporated into the Contract Documents, as applicable. Insofar as the original Contract Documents, Specifications, and Drawings are inconsistent, this Addendum shall govern. Please acknowledge receipt of this Addendum on both copies of the Bid Proposal form, Section 00300 submitted to the City of Dickinson, TX. **FAILURE TO ACKNOWLEDGE RECEIPT OF ADDENDA ON THE BID PROPOSAL FORM MAY BE CAUSE FOR DISQUALIFICATION.**

CONTRACT DOCUMENTS

The attached Bid Form sheets replace the original Bid Form sheets and shall be used for bidding purposes. Items in the Bid Proposal found under Supplemental Items have been removed and are now included in Part A Paving and Drainage Bid Items. Further, Item 36 and 37 have been added and are in bold text.

SPECIFICATIONS:

No field office will be required during construction of the project. Where areas under Specification 01520 - Temporary Field Office in the technical part of the specifications state that a field office is required, the requirements listed under the heading Field Office in the Galveston County Specifications and Contract Documents, Section III - Special Terms and Conditions shall apply.

CONSTRUCTION DRAWINGS

N/A

END OF ADDENDUM NO 1

Mr Matthew Hanks, P E
Project Manager



BID NUMBER # _____

BID PROPOSAL

The bidder hereby proposes to furnish all labor, material, equipment and incidentals for
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

Enclosed is a Certified Check, Cashier's Check or Bid Bond in the sum of 5% of the greatest amount bid

Bidder agrees to perform in accordance with the requirements of the contract documents in consideration of payment by the County of the prices in this proposal

**IN CASE OF DISCREPANCY BETWEEN UNIT PRICES AND EXTENDED PRICES,
UNIT PRICES WILL GOVERN.**

**This bid sheet must be completely filled out in ink or typewritten with any
necessary supplemental information attached.**

The undersigned hereby agrees to all of the foregoing terms and provisions and to all terms and provisions of the contract, if awarded, which includes all provisions of Sections I - VI of this bid package

BIDDER	_____
SIGNATURE	_____
PRINT NAME	_____
TITLE	_____
ADDRESS	_____
CITY, STATE	_____
ZIP	_____
TELEPHONE	_____
FAX NO	_____
DATE	_____
TAX ID No.	_____

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
A) PAVING AND DRAINAGE BID ITEMS						
1	Mobilization, complete in place the sum of	L S	1	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
2	Traffic Control, complete in place the sum of	MO	4	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
3	Milling of existing asphalt and base material, complete in place the sum of	S Y	6,700	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
4	6" concrete curb, complete in place the sum of	L F	1,475	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
5	Re-Grade Roadside Ditches, complete in place the sum of	L F	3,334	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
6	Stabilized Construction Exit, complete in place the sum of	EA	4	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
7	Reinforced filter fabric barrier (for SWPPP), complete in place the sum of	L F	648	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
8	Inlet Protection Barrier, complete in place the sum of	EA	30	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
9	Roadway excavation, complete in place the sum of	C Y	12,193	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
10	4" Concrete Sidewalk with Ramps, complete in place the sum of	S Y	950	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
11	6-in Reinforced Concrete Driveways including Subgrade, complete in place the sum of	S Y	1,332	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
12	8-in Reinforced Concrete Paving, complete in place the sum of	S Y	7,100	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
13	6-in Thick Lime Stabilized Subgrade including lime (6% lime), complete in place the sum of	S Y	7,716	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
14	Pavement Headers, complete in place the sum of	L F	371	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
15	5'x5' Type H-2 Inlet, complete in place the sum of	EA	3	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
16	7'x5' Type H-2 Inlet, complete in place the sum of	EA	4	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
17	Type A Inlet, complete in place the sum of	EA	6	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
18	Remove and Re-Place State 2 of H-2 Inlet, complete in place the sum of	EA	1	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
19	Adjust Existing Inlet & Manhole Rim & Cover, complete in place the sum of	EA	5	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
20	18" RCP Driveway Culvert, complete in place the sum of	L F	679	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
21	24" RCP Driveway Culvert, complete in place the sum of	L F	30	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
22	18" RCP Storm Sewer, complete in place the sum of	L F	20	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
23	18" x 28" RCP Storm Sewer, complete in place the sum of	L F	92	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
24	Re-construct Wood Pedestrian Bridge, complete in place the sum of	EA	2	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
25	24" RCP Storm Sewer, complete in place the sum of	L F	298	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
26	Project Identification Sign, complete in place the sum of	EA	1	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
27	Sodding, complete in place the sum of	S Y	7,250	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
28	Remove and Re-Place Fire Hydrant, complete in place the sum of	EA	1	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____

**BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION**

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
29	Remove and Replace Inlet Top and Cover, complete in place the sum of	EA	1	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
30	Brace, support and protect utility structures as per Utility Company's requirements, complete in place the sum of	EA	2	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
31	Adjust Water Lines, all sizes, complete in place the sum of	L F	100	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
32	Adjust sanitary sewer services, all sizes, the complete in place the sum of	L F	100	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
33	Wet condition bedding for storm sewer installation, all sizes, all depths, consisting of 12" crushed stone foundation, complete in place the sum of	L F	100	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
34	Extra cement stabilized sand backfill, complete in place the sum of	C Y	100	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
35	Extra bank sand backfill, complete in place the sum of	C Y	100	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
36	Replacement of small signs, complete in place the sum of	EA	4	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
37	Well pointing for storm sewer, complete in place the sum of.	L F	100	_____ DOLLARS AND _____ CENTS	\$ _____	\$ _____
<u>TOTAL BID</u>					\$ _____	

State of Texas Tax Statement of Materials and other charges

The cost of in-place materials to be
incorporated into the project

\$ _____

The cost of labor, profit, materials
not in-place and all other charges

\$ _____

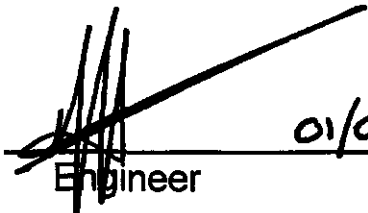
TOTAL (Must agree with bid)

\$ _____

COUNTY OF GALVESTON
SPECIFICATIONS AND CONTRACT DOCUMENTS

SUNNYVIEW AND SKYVIEW RECONSTRUCTION





Engineer 01/07/11

CONTENTS

SECTION	I	Invitation to Bid	1 page
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		Instructions to Bidders	4 pages
SECTION	II	Bid Proposal	6 pages
		Contract Award	2 pages
SECTION	III	Special Terms and Conditions	5 pages
		Wage Rates & AIA Forms	8 pages
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SECTION	V	Specifications	
SECTION	VI	Plans	

SECTION I

Invitation to Bid

General Provisions

Vendor Qualification Packet

Instructions to Bidders



BID #: B111026
OPEN: 01/25/2011
2:00 PM

INVITATION TO BID
RECONSTRUCTION OF SUNNYVIEW & SKYVIEW STREETS
GALVESTON COUNTY, TEXAS

BID #B111026

The County of Galveston solicits bids on the following project.

Contract to furnish labor, equipment, materials and incidentals as required for
Bid #B111026, Reconstruction of Sunnyview & Skyview Streets

Sealed bids in sets of five (5), (one (1) original and four (4) copies) will be received in the office of the County Purchasing Agent, until 2:00 on 1/25/11 and opened immediately in that office in the presence of the County Auditor and the Purchasing Agent. Bidders are specifically advised that any bid delivered after this time will be returned unopened.

Submitted bids will be publicly opened on 01/25/2011 at 2:00 PM in the Purchasing Agents office located in the Galveston County Courthouse, 722 Moody Avenue (21st St), Fifth (5th) Floor, Galveston, Texas 77550

All bids must be marked on the outside of the envelope
Bid #B111026, Reconstruction of Sunnyview or Skyview

Bidder's name and return address should be on the outside of the envelope.

Plans and specifications may be obtained from the office of the HDR|Claunch and Miller, 4635 Southwest Freeway, Suite 1000, Houston, Texas 77027, (713) 622-9264

A \$120 00 non refundable deposit shall be required for each set of plans and specifications

Proposals will be either lump sum or unit prices as shown on the proposal sheet, if applicable The net price will be delivered to Galveston County, including all freight or shipping charges The County is tax exempt and no taxes should be included in your proposal

Bids will be completed on the forms and proposal sheets provided

Each bid must be accompanied by a Certified or Cashier's Check or acceptable Bidder's Bond in the amount of 5% of bid as a guarantee that, if awarded the contract, within sixty (60) days from the date of bid opening, the bidder will enter into a contract and execute any required Performance and Payment Bonds.

Commissioners' Court reserves the right to waive any informality and to reject any and all bids, and to accept bid or bids which, in its opinion, is most advantageous to the County

Rufus G Crowder, CPPB
Purchasing Agent
Galveston County

GENERAL PROVISIONS RECONSTRUCTION OF SUNNYVIEW AND SKYVIEW STREETS GALVESTON COUNTY, TEXAS

1. BID PACKAGE

The invitation to bid, general and special provisions, drawings, specifications/line item details, contract documents and the bid sheet are all considered part of this bid package. Bids must be submitted in sets of six (6), one (1) original and five (5) copies, on the forms provided by the County, including the bid sheet completed in its entirety and signed by an authorized representative by original signature. Failure to complete and sign the bid sheet/contract page(s) may disqualify the bid from being considered by Commissioners' Court. Any individual signing on behalf of the bidder expressly affirms that he or she is duly authorized to tender this bid and to sign the bid sheet/contract under the terms and conditions in this bid. Bidder further understands that the signing of the contract shall be of no effect unless subsequently awarded and the contract properly executed by Commissioners' Court. All figures must be written in ink or typed. Figures written in pencil or with erasures are not acceptable. However, mistakes may be crossed out, corrections inserted, and initialed in ink by the individual signing the bid. If there are discrepancies between unit prices quoted and extensions, the unit price will prevail. Each bidder is required to thoroughly review this entire bid packet to familiarize themselves with the bid procedures, the plans and specifications for the requested work as well as the terms, and conditions of the contract the successful bidder will execute with the County.

2. COMPETITIVENESS AND INTEGRITY

To prevent biased evaluations and to preserve the competitiveness and integrity of such acquisition efforts, bidders are to direct all communications regarding this bid to the Galveston County Purchasing Agent, unless otherwise specifically noted.

Do not contact the requesting department. Attempts by offering firms to circumvent this requirement will be viewed negatively and may result in rejection of the offer of the firm found to be in non-compliance.

All questions regarding this Invitation to Bid must be submitted in writing to:

Rufus G. Crowder, CPPB
Galveston County Purchasing Agent
722 Moody, Fifth (5th) Floor
Galveston, Texas 77550
Fax: (409) 621-7987
E-mail: rufus.crowder@co.galveston.tx.us

An authorized person from the submitting firm must sign all bids. This signature acknowledges that the bidder has read the bid documents thoroughly before submitting a bid and will fulfill the obligations in accordance to the terms, conditions, and specifications.

Please carefully review this Invitation to Bid. It provides specific information necessary to aid participating firms in formulating a thorough response.

3. TIME FOR RECEIVING BIDS

Bids received prior to the submission deadline will be maintained unopened until the specified time for opening. If the bidder fails to identify the Bid Number on the outside of the envelope as required, the Purchasing Agent will open the envelope for the sole purpose of identifying the bid number for which the submission was made. The envelope will then be resealed. No liability will attach to a County office or employee for the premature opening of a bid. If you do not submit a bid, return this Invitation to Bid and state reason, otherwise your name may be removed from our mailing list.

4. BID OPENING

The names of the bidders and the pricing will be read aloud at the bid opening. Sealed bids will be received in the office of the County Purchasing Agent and opened immediately in that office in the presence of the County Auditor and the Purchasing Agent. No bid may be withdrawn for a period of sixty (60) calendar days of the bid opening date.

**GENERAL PROVISIONS
RECONSTRUCTION OF SUNNYVIEW AND SKYVIEW STREETS
GALVESTON COUNTY, TEXAS**

5. REJECTION OF BIDS

The County, acting through its Commissioners' Court reserves the right to. (1) reject any and all bids and waive any informality in the bids received, (2) disregard the bid of any bidder determined to be non responsive to the provisions contained herein.

6. RESTRICTIVE OR AMBIGUOUS SPECIFICATIONS

It is the responsibility of the prospective bidder to review the entire invitation to bid packet and to notify the Purchasing Department if the specifications are formulated in a manner that would restrict competition or appear ambiguous. Any such protest or question(s) regarding the specifications or bid procedures must be received in the Purchasing Department not less than seventy-two (72) hours prior to the time set for bid opening. Vendors are to bid as specified herein or bid an approved equal. The mention of any brand name in the specifications is not intended to be restrictive, but is intended to describe the general features and requirements (or equivalent) that Galveston County is seeking.

7. SUBSTITUTES

It is not the County's intent to discriminate against any materials of equal merit to those specified, however, no substitutions are allowed for this bid unless specific instructions are included in the Special Provision section that allow alternate substitutions. Should the bidder desire to use any substitutions, prior written approval shall be obtained from the County Purchasing Agent sufficiently in advance in order that an addendum might be issued.

8. EXCEPTIONS TO BID

No exceptions to this bid are allowed unless specific instructions are included in the Special Provision section that allow exceptions to the bid conditions. Otherwise, Bidders must adhere to the specifications when completing their submittals.

9. PRICING

Bids will be either lump sum or unit prices as shown on the bid sheet. The net price will be delivered to Galveston County, including all freight or shipping charges. The County is tax exempt and no taxes should be included in your bid.

Cash discount must be shown on bid, otherwise prices will be considered net. Unless prices and all information requested are complete, bid may be disregarded and given no consideration.

In case of default by the contractor, the County of Galveston may procure the articles or services from other sources and may deduct from any monies due, or that may thereafter become due to the contractor, the difference between the price named in the contract of purchase order and the actual cost thereof to the County of Galveston. Prices paid by the County of Galveston shall be considered the prevailing market price at the time such purchase is made. Periods of performance may be extended if the facts as to the cause of delay justify such extension in the opinion of the Purchasing Agent and the Commissioners' Court.

10. PROCUREMENT CARD PROGRAM

The County of Galveston participates in a Procurement Card (P-Card) program that allows payments made to the vendor by credit card. This method normally results in substantially faster bill payments sometimes within three (3) to five (5) days of the actual transaction date. If your company will accept payment via credit card (Visa, MasterCard), please notate this in your bid submittal.

11. TAX EXEMPTION

Any resultant purchase orders are issued by a political subdivision of the State of Texas which qualifies for exemption from sales, excise, and use taxes pursuant to sections 151.309 – 151.311, of the Texas Tax Code. The contractor performing this contract may purchase all materials, and supplies, used or consumed in the performance of this contract by issuing to his supplier an exemption certificate complying with State Comptroller's Ruling #95-9307 in lieu of tax. Any such exemption certificate issued by the Contractor in lieu of tax shall be subject to the provisions of the State Comptroller's ruling #95-05 (effective October 2, 1968) or as hereafter amended. As a general rule, a vendor is not required to pay state sales tax on goods purchased that are totally incorporated into or consumed by the public improvements. Certificates may be issued upon request.

**GENERAL PROVISIONS
RECONSTRUCTION OF SUNNYVIEW AND SKYVIEW STREETS
GALVESTON COUNTY, TEXAS**

12. PASS THROUGH COST ADJUSTMENTS

Except in instances of extreme extenuating circumstances Vendor prices shall remain firm throughout the Contract period and any renewals. Examples of extreme extenuating circumstances include such situations as a nation wide rail strike, oil shortage, or oil embargos

In extreme extenuating circumstances Vendors may be allowed to temporarily "pass through" additional costs they are forced to incur through no fault of their own. A request for a pass through cost increase will not be considered unless a Vendor's cost for his product exceeds 10% over the original cost for the product. Also, the increase in cost must be nationwide and consistent for a minimum period of sixty (60) days. If a Vendor thinks he will be asking for a pass through cost adjustment during the term of his contract the original cost of his product to him must be stated in Vendor's original bid.

A request for a pass through cost does not guarantee that one will be granted. Vendors must submit such information on each request as is required by the County Purchasing Agent. The County Purchasing Agent will review each request on a case by case basis and determine the appropriateness of each request as well as amount and duration of increase. Vendors will not be permitted any additional compensation for mark-ups or profits based on the increase in price. Rather, such additional compensation will be limited to the actual increase in original cost to the Vendor as such increase is reflected by the original cost stated in the bid. But in no event will the amount of additional compensation exceed 25% increase in

Vendor's original cost for his product as such cost is reflected in Vendor's original bid or the duration exceed a period of sixty (60) days. In addition, should, during the period of the pass through, cost return to normal or decrease to below pre pass through prices, appropriate downward adjustments will be made. No more than one pass through adjustment will be permitted per year.

13. MODIFICATION OF BIDS

A bidder may modify a bid by letter at any time prior to the submission deadline for receipt of bids. Modification requests must be received prior to the submission deadline. Modifications made before opening time must be initialed by bidder guaranteeing authenticity. Bids may not be amended or altered after the official opening with the single exception that any product literature and/or supporting data required by the actual specifications, if any, will be accepted at any time prior to the Commissioners' Court consideration of same.

14. AWARD OF BIDS

The award will be made to the bidder who is determined to be the lowest bidder demonstrating the best value and ability to fulfill the requirements of the bid. The prices proposed will be considered firm and cannot be altered after the submission deadline.

The criteria utilized for determining responsibility of bidder(s) includes, but is not limited to, the bidder's experience, skill, ability, business judgment, financial capacity, integrity, honesty, possession of the necessary facilities or equipment, previous performance, reputation, promptness, and any other factor deemed relevant by the County. The bidder shall furnish any information requested by the County in order for the County to determine whether a bidder is responsible.

In determining and evaluating the best bid, the pricing may not necessarily be controlling, but quality, equality, efficiency, utility, general terms, delivery, suitability of the service offered, and the reputation of the service in general use will also be considered with any other relevant items. The Commissioners' Court shall be the sole judge in the determination of these matters.

Each bidder, by submitting a bid, agrees that if their bid is accepted by the Commissioners' Court, such bidder will furnish all items and services upon which prices have been tendered and upon the terms and conditions in this bid and contract.

**GENERAL PROVISIONS
RECONSTRUCTION OF SUNNYVIEW AND SKYVIEW STREETS
GALVESTON COUNTY, TEXAS**

The contractor shall commence work only after the transmittal of a fully executed purchase order, or contract, and after receiving written notification to proceed from Galveston County. The contractor will perform all services indicated in the bid in compliance with this contract.

Neither department heads nor elected officials are authorized to sign any binding contracts or agreements prior to being properly placed on the Commissioners' Court agenda and approved in open court. Department heads and other elected officials are not authorized to enter into any type of agreement or contract on behalf of Galveston County. Only the Commissioners' Court, acting as a body, may enter into a contract on behalf of Galveston County. Additionally, department heads and other elected officials are not authorized to agree to any type of supplemental agreements or contracts for goods or services. Supplemental agreements are subject to review by the Galveston County Legal Department prior to being signed by the County's authorized representative.

The County of Galveston reserves the right to accept bids on individual items listed, or group items, or on the bid as a whole, to reject any and all bids, to waive any informality in the bids, and to accept the bid that appears to be in the best interest of the County.

Notice of contract award will be made within ninety (90) days of opening of bids to the lowest responsive and responsible contractor, whose bid complies with all the requirements in this Invitation to Bid unless special consideration is granted by the Commissioners' Court.

Contractor shall submit to the County, for approval, within ten (10) days from notice of contract award, all Certificates of Insurance evidencing the required coverage as described under insurance in the schedule of the Invitation to Bid, item 29, page 7, Proof of Insurance.

The contractor shall not commence work under these terms and conditions of the contract until all applicable Certificates of Insurance, Performance and Payment Bonds, and Irrevocable Letter of Credit (if required) have been approved by the County of Galveston and he/she has received notice to proceed in writing and an executed copy of the contract from the County of Galveston Purchasing Agent.

15. RESULTANT CONTRACT

The resultant contract if applicable, shall become effective upon the Commissioners' Court execution of the same. The contract documents shall consist of the contract, the general and special provisions, the drawings, bid package, any addenda issued, and any change orders issued during the work. If applicable to the attached bid, bidder must sign three (3) original contracts and return with their bid submittal.

16. CONTRACT TERM

The term of the resultant contract will begin on the date of execution by the Commissioners' Court and will terminate on the date specified in the resultant contract unless terminated earlier as herein set forth.

17. TERMINATION FOR DEFAULT

Failure of either party in the performance of any of the provisions of this contract shall constitute a breach of contract, in which case, either party may require corrective action within ten (10) days from date of receipt of written notice citing the exact nature of such breach. Failure of the party being notified to take corrective action within the prescribed ten (10) days, or failure to provide written reply of why no breach has occurred, shall constitute a Default of Contract.

All notices relating to default by Bidder of the provisions of the contract shall be issued by County by its Legal Department, and all replies shall be made in writing to the Galveston County Legal Department. Notices issued by or issued to anyone other than the Galveston County Legal Department shall be null and void and shall be considered as not having been issued or received.

GENERAL PROVISIONS RECONSTRUCTION OF SUNNYVIEW AND SKYVIEW STREETS GALVESTON COUNTY, TEXAS

Galveston County reserves the right to enforce the performance of this contract in any manner prescribed by law in the event of breach or default of this contract, and may contract with another party, with or without solicitation of bids or bids or further negotiations. At a minimum, bidder shall be required to pay any difference in service or materials, should it become necessary to contract with another source, plus reasonable administrative costs and attorney fees

In the event of Termination for Default, Galveston County, its agents or representatives shall not be liable for loss of any profits anticipated to be made by bidder

No waiver by either party of any event of default under this agreement shall operate as a waiver of any subsequent default under the terms of this agreement

County reserves the right to terminate this contract immediately in the event bidder

- Fails to meet delivery or completion schedules,
- Fails to otherwise perform in accordance with the accepted bid and the contract

18. TERMINATION FOR CONVENIENCE

County may terminate this contract upon at least thirty (30) days prior written notice for its' convenience or for any reason deemed by the County to serve the public interest. County may terminate this contract upon thirty (30) days prior written notice for any reason resulting from any governmental law, order, ordinance, regulations, or court order. In no event shall County be liable for loss of any profits anticipated to be made hereunder by bidder should this contract be terminated early

19. FORCE MAJEURE

If by reason of Force Majeure either Party shall be rendered unable, wholly or in part, to carry out its responsibilities under this contract by any occurrence by reason of Force Majeure, then the Party unable to carry out its responsibility shall give the other Party notice and full particulars of such Force Majeure in writing within a reasonable time after the occurrence of the event, and such notice shall suspend the Party's responsibility for the continuance of the Forced Majeure claimed, but for no longer period.

Force Majeure means acts of God, floods, hurricanes, tropical storms, tornadoes, earthquakes, or other natural disasters, acts of a public enemy, acts of terrorism, sovereign conduct, riots, civil commotion, strikes or lockouts, and other causes that are not occasioned by either Party's conduct which by the exercise of due diligence the Party is unable to overcome and which substantially interferes with operations

20. ESTIMATED QUANTITIES

Any reference to quantities shown in the Invitation to Bid are an estimate only. Since the exact quantities cannot be predetermined, the County reserves the right to adjust quantities as deemed necessary to meet its' requirements

21. CONTRACTOR INVESTIGATION

Before submitting a bid, each contractor shall make all investigations and examinations necessary to ascertain all site conditions and requirements affecting the full performance of the contract and to verify any representations made by the County upon which the contractor will rely. If the contractor receives an award as a result of its bid submission, failure to have made such investigations and examinations will in no way relieve the contractor from its obligation to comply in every detail with all provisions and requirements of the contract, nor will a plea of ignorance of such conditions and requirements be accepted as a basis for any claim whatsoever by the contractor for additional compensation.

22. NO COMMITMENT BY COUNTY OF GALVESTON

This Invitation to Bid does not commit the County of Galveston to award any costs or pay any costs, or to award any contract, or to pay any costs associated with or incurred in the preparation of a bid to this request, or to procure or contract for services or supplies

**GENERAL PROVISIONS
RECONSTRUCTION OF SUNNYVIEW AND SKYVIEW STREETS
GALVESTON COUNTY, TEXAS**

23. SINGLE BID RESPONSE

If only one bid is received in response to the Invitation to Bid, a detailed cost bid may be requested of the single contractor. A cost/price analysis and evaluation and/or audit may be performed of the cost bid in order to determine if the price is fair and reasonable.

24. REJECTION/DISQUALIFICATION OF BIDS

Galveston County reserves the right to reject any or all bids in whole or in part received by reason of this bid package and may discontinue its efforts for any reason under this bid package at any time prior to actual execution of the contract by the County. Bidders may be disqualified and rejection of bids may be recommended to the Commissioners' Court for any of (but not limited to) the following causes:

- A Failure to use the bid form(s) furnished by the County, if applicable
- B Lack of signature by an authorized representative that can legally bind the company on the bid form
- C Failure to properly complete the bid.
- D Bids that do not meet the mandatory requirements
- E Evidence of collusion among bidders.

25. CHANGES IN SPECIFICATIONS

If it becomes necessary to revise any part of this bid, a written notice of such revision will be provided to all bidders in the form of addenda. The County is not bound by any oral representations, clarifications, or changes made in the written specifications by the County's employees, unless such clarification or change is provided to bidders in a written addendum from the Purchasing Agent.

The County of Galveston reserves the right to revise or amend the specifications up to the time set for opening of bids. Such revisions and amendments, if any, shall be announced by amendments to the solicitation. Copies of such amendments shall be furnished to all prospective contractors. Prospective contractors are defined as those contractors listed on the County's Invitation to Bid list for this material/service or who have obtained his documents subsequent to the advertisement. If revisions and amendments require changes in quantities or prices proposed, or both, the date set for opening of bids may be postponed by such number of days as in the opinion of the County shall enable contractors to revise their bids. In any case, the bid opening shall be at least five working days after the last amendment; and the amendment shall include an announcement of the new date if applicable, for the opening of bids.

26. BID DISCLOSURES

The names of those who submitted bids will not be made public information until after an award is made by Commissioners' Court. No price or staffing information will be released. Bidders are requested to withhold all inquiries regarding their bid or other submissions until after an award is made. No communication is to be had with any County employee, other than the Purchasing Agent, regarding whether a bid was received. Violations of this provision may result in the rejection of a bid.

27. PROTEST

Any actual or prospective bidder who is allegedly aggrieved in connection with the solicitation or award of bid may protest. The protest will be submitted in writing to the Purchasing Agent within seven (7) days after such aggrieved person knows of, or should have known of the facts giving rise thereto. If the protest is not resolved by mutual agreement, the Purchasing Agent will promptly issue a decision in writing to the protestant. If the protestant wishes to appeal the decision rendered by the Purchasing Agent, such appeal must be made to the Commissioners' Court through the Purchasing Agent. The decision of the Court will be final. The Court need not consider protests unless this procedure is followed.

28. WITHDRAWAL OF BID

Bidders may request withdrawal of a sealed bid prior to the scheduled bid opening time provided the request for withdrawal is submitted to the Purchasing Agent in writing. No bids may be withdrawn for a period of sixty (60) calendar days after opening of the bids.

**GENERAL PROVISIONS
RECONSTRUCTION OF SUNNYVIEW AND SKYVIEW STREETS
GALVESTON COUNTY, TEXAS**

29. INDEMNIFICATION

The contractor shall agree to assume all risks and responsibility for, and agrees to indemnify, defend, and save harmless, the County of Galveston, its elected and appointed officials and department heads, and its agents and employees from and against all claims, demands, suits, actions, recoveries, judgments, and costs and expenses including reasonable attorney's fees for the defense thereof in connection therewith on account of the loss of life, property or injury or damage to the person which shall arise from contractor's operations under this contract, its use of County facilities and/or equipment or from any other breach on the part of the contractor, its employees, agents or any person(s) in or about the County's facilities with the expressed or implied consent of the County. Contractor shall pay any judgment with cost which may be obtained against Galveston County resulting from contractor's operations under this contract.

Contractor agrees to indemnify and hold the County harmless from all claims of subcontractors, laborers incurred in the performance of this contract. Contractor shall furnish satisfactory evidence that all obligations of this nature herein above designated have been paid, discharged or waived. If Contractor fails to do so, then the County reserves the right to pay unpaid bills of which County has written notice direct and withhold from Contractor's unpaid compensation a sum of money reasonably sufficient to liquidate any and all such lawful claims.

30. PROOF OF INSURANCE

Successful bidder agrees to keep in full force and effect, a policy of public liability and property damage insurance issued by a casualty company authorized to do business in the State of Texas, and in standard form approved by the Board of Insurance Commissioners' of the State of Texas, with coverage provision insuring the public from any loss or damage that may arise to any person or property by reason of services rendered by successful bidder and providing that the amount by reason of services limits of not less than the following sums

- A For damages arising out of bodily injury to or death of one person in any one accident –
ONE HUNDRED THOUSAND AND NO/100 (\$100,000 00) DOLLARS
- B For damages arising out of bodily injury to or death of two or more persons in any one accident –
THREE HUNDRED THOUSAND AND NO/100 (\$300,000 00) DOLLARS
- C For any injury to or destruction of property in any one accident –
ONE HUNDRED THOUSAND AND NO/100 (\$100,000 00) DOLLARS

Successful bidder shall carry in full force Workers' Compensation Insurance Policy(ies), if there is more than one employee, for all employees, including but not limited to full time, part time, and emergency employees employed by the successful bidder Current insurance Certificates certifying that such policies as specified above are in full force and effect shall be furnished by successful bidder to the County

Galveston County shall be listed as the additional insured on policy certificates and shall be notified of any changes to the policy during the contractual period.

31. BID BOND

Each bidder will be required to furnish with their bid a Cashier's or Certified Check from any bank with in the State of Texas or an acceptable Bidder's Bond for the sum of 5% of the total highest bid payable to the County of Galveston The certified check or bid bond will be returned to the unsuccessful bidder(s) and to the successful bidder on the completion of all contract documents and the furnishing of any necessary payment bonds and insurance certificates

The bid bond or check will be forfeited to the County as liquidated damages should the successful bidder fail to give the required payment and performance bonds and insurance certificates and execute the contract with the said County within thirty (30) days after receiving notice of acceptance of its bid

**GENERAL PROVISIONS
RECONSTRUCTION OF SUNNYVIEW AND SKYVIEW STREETS
GALVESTON COUNTY, TEXAS**

32. PERFORMANCE AND PAYMENT BOND(S)

V T C A , Government Code Chapter 2253, requires a Performance Bond (for contracts in the excess of \$100,000) and a Payment Bond (for contracts in excess of \$25,000), to be provided by the Contractor. Each bond required shall be equal to the total contract price and shall be issued by a satisfactory surety company. The bond(s) will remain in full force and effect until final completion and acceptance of the work.

The bond(s) are to be made payable to the County of Galveston. They shall be written on forms provided by the surety for public works projects in Texas. A surety licensed to do business in the state of Texas must execute the bond.

Bidders should familiarize themselves with the entire provisions of V T C.A , Chapter 2253 and the penalties provided for its violation before submitting their bid.

33. CONFLICT OF INTEREST DISCLOSURE REPORTING

Proposer may be required under Chapter 176 of the Texas Local Government Code to complete and file a conflict of interest questionnaire (CIQ Form). If so, the completed CIQ Form must be filed with the County Clerk of Galveston County, Texas.

If Proposer has an employment or other business relationship with an officer of Galveston County or with a family member of an officer of Galveston County that results in the officer or family member of the officer receiving taxable income that exceeds \$2,500.00 during the preceding 12-month period, then Proposer **MUST** complete a CIQ Form and file the original of the CIQ Form with the County Clerk of Galveston County.

If Proposer has given an officer of Galveston County or a family member of an officer of Galveston County one or more gifts with an aggregate value of more than \$250.00 during the preceding 12-months, then Proposer **MUST** complete a CIQ Form and file the original of the CIQ Form with the County Clerk of Galveston County.

The Galveston County Clerk has offices at the following locations.

Galveston County Clerk
Galveston County Justice Center, Suite 2001
600 59th Street
Galveston, Texas 77551

Galveston County Clerk
North County Annex, 1st Floor
174 Calder Road
League City, Texas 77573

Again, if Proposer is required to file a CIQ Form, the original completed form is filed with the Galveston County Clerk (not the Purchasing Agent).

For Proposer's convenience, a blank CIQ Form is enclosed with this proposal. Blank CIQ Forms may also be obtained by visiting the Galveston County Clerk's website and/or the Purchasing Agent's website – both of these web sites are linked to the Galveston County homepage, at <http://www.co.galveston.tx.us>

As well, blank CIQ Forms may be obtained by visiting the Texas Ethics Commission website, specifically at http://www.ethics.state.tx.us/whatsnew/conflict_forms.htm.

Chapter 176 specifies deadlines for the filing of CIQ Forms (both initial filings and updated filings)

GENERAL PROVISIONS RECONSTRUCTION OF SUNNYVIEW AND SKYVIEW STREETS GALVESTON COUNTY, TEXAS

It is Proposer's sole responsibility to file a true and complete CIQ Form with the Galveston County Clerk if Proposer is required to file by the requirements of Chapter 176. Proposer is advised that it is an offense to fail to comply with the disclosure reporting requirements dictated under Chapter 176 of the Texas Local Government Code.

If you have questions about compliance with Chapter 176, please consult your own legal counsel. Compliance is the individual responsibility of each person, business, and agent who is subject to Chapter 176 of the Texas Local Government Code.

34. ENTIRETY OF AGREEMENT AND MODIFICATION

This contract contains the entire agreement between the parties. Any prior agreement, promise, negotiation or representation not expressly set forth in this contract has no force or effect. Any subsequent modification to this contract must be in writing, signed by both parties.

An official representative, employee, or agent of the County does not have the authority to modify or amend this contract except pursuant to specific authority to do so granted by the Galveston County Commissioners' Court.

35. NON-COLLUSION AFFIDAVIT

The contractor declares, by signing and submitting a bid, that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation, that the bid is genuine and not collusive or sham, that the contractor has not directly or indirectly induced or solicited another contractor to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any contractor or anyone else to put in a sham bid, or that anyone shall refrain from bidding, that the contractor has not in any manner, directly or indirectly, sought by agreement, communications, or conference with anyone to fix the bid price of the contractor or any other bidder, or to fix any overhead, profit or cost element of the bid price, or of that of any other contractor, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract, that all statements contained in the bid are true, and further, that the contractor has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any cooperation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

No negotiations, decisions, or actions shall be initiated by any company as a result of any result of any verbal discussion with any County employee prior to the opening of responses to this Invitation to Bid.

No officer or employee of the County of Galveston, and no other public or elected official, or employee, who may exercise any function or responsibilities in the review or approval of this undertaking shall have any personal or financial interest, direct or indirect, in any contract or negotiation process thereof. The above compliance request will be part of all County of Galveston contracts for this service.

36. PROCUREMENT ETHICS

Galveston County is committed to the highest ethical standards. Therefore, it is a serious breach of the public trust to subvert the public purchasing process by directing purchases to certain favored vendors, or to tamper with the competitive bidding process, whether it's done for kickbacks, friendship or any other reason. Since misuse of the purchasing power of a local government carries criminal penalties, and many such misuses are from a lack of clear guidelines about what constitutes an abuse of office, the Code of Ethics outlined below must be strictly followed.

Galveston County also requires ethical conduct from those who do business with the county.

CODE OF ETHICS – Statement of Purchasing Policy

Public employment is a public trust. It is the policy of Galveston County to promote and balance the objective of protecting the County's integrity and the objective of facilitating the recruitment and retention of personnel needed by Galveston County. Such policy is implemented by prescribing essential standards of ethical conduct without creating unnecessary obstacles to entering public office.

GENERAL PROVISIONS RECONSTRUCTION OF SUNNYVIEW AND SKYVIEW STREETS GALVESTON COUNTY, TEXAS

Public employees must discharge their duties impartially so as to assure fair competitive access to governmental procurement by responsible contractors. Moreover, they should conduct themselves in such a manner as to foster public confidence in the integrity of the Galveston County procurement organization.

To achieve this purpose, it is essential that those doing business with Galveston County also observe the ethical standards prescribed herein.

General Ethical Standards

It shall be a breach of ethics to attempt to realize personal gain through public employment with Galveston County by any conduct inconsistent with the proper discharge of the employee's duties.

It shall be a breach of ethics to attempt to influence any public employee of Galveston County to breach the standards of ethical conduct set forth in this code.

It shall be a breach of ethics for any employee of Galveston County to participate directly or indirectly in a procurement when the employee knows that

- The employee or any member of the employee's immediate family, has a financial interest pertaining to the procurement.
- A business or organization in which the employee, or any member of the employee's immediate family, has a financial interest pertaining to the procurement.
- Any other person, business or organization with which the employee or any member of the employee's immediate family is negotiating or has an arrangement concerning prospective employment is involved in the procurement.

Gratuities

It shall be a breach of ethics to offer, give or agree to give any employee of Galveston County, or for any employee or former employee of Galveston County to solicit, demand, accept or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation of any part of a program requirement or purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any program requirement or a contract or subcontract, or to any solicitation or bid therefore pending before this government.

Kickbacks

It shall be a breach of ethics for any payment, gratuity or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor for any contract for Galveston County, or any person associated therewith, as an inducement for the award of a subcontract or order.

Contract Clause

The prohibition against gratuities and kickbacks prescribed above shall be conspicuously set forth in every contract and solicitation by Galveston County.

Confidential Information

It shall be a breach of ethics for any employee or former employee of Galveston County to knowingly use confidential information for actual or anticipated personal gain, or for the actual or anticipated gain of any person.

37. OPEN RECORDS

Galveston County is required to adhere to the provisions of the Texas Public Information Act. All information, documentation and other material submitted by vendor in response to any solicitations or under any resulting contract thereof may be subject to public disclosure under the Texas Public Information Act (TX Gov't Code,

**GENERAL PROVISIONS
RECONSTRUCTION OF SUNNYVIEW AND SKYVIEW STREETS
GALVESTON COUNTY, TEXAS**

Chapter 552) Vendors are hereby notified that Galveston County strictly adheres to this statute and the interpretations thereof rendered by the Courts and/or Texas Attorney General's office. Vendor shall be deemed to have knowledge of this law and how to protect their interests under it. Exceptions to disclosure of information as provided by this statute are intended to protect legitimate interests of the County or vendor, and are not intended to serve as a means to withhold or delay disclosure of information not covered by these exceptions.

If vendor considers any submitted information to be proprietary in nature, protected by trade secrets, or otherwise confidential, said material should be clearly marked and conspicuously notated as such. Failure to do so shall not place any burden on the County of Galveston for the release of any material not abiding by this provision.

38. NOTICE

Any notice required or permitted between the parties under this contract must be in writing and shall be delivered in person or mailed, certified mail, return receipt requested, or may be transmitted by fax as follows:

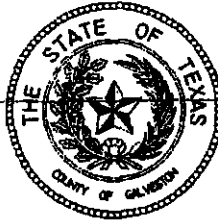
To the County at

Hon. Mark A. Henry, County Judge
722 Moody
Second (2nd) Floor
Galveston, Texas 77550
Fax (409) 765-2653

And to

Rufus G. Crowder, CPPB
Purchasing Agent
722 Moody, Fifth (5th) Floor
Galveston, Texas 77550
Fax (409) 621-7987

Harvey Bazaman
Director of County Legal
722 Moody, Fifth (5th) Floor
Galveston, Texas 77550
Fax (409) 770-5560



County of Galveston Purchasing Department Vendor Qualification Packet

(rev 1.2, March 29, 2010)

All interested parties seeking consideration for qualified vendor status with the County of Galveston should complete and return only the following attached forms to:

Galveston County Purchasing Department
722 Moody Avenue, (21st Street), 5th Floor
Galveston, Texas 77550
(409) 770-5371 office
(409) 621-7987 fax

Form PEID: Person /Entity Information Data

Form W-9: Request for Taxpayer Identification Number and Certification

(please note that the included form may not be the latest revised form issued by the Internal Revenue Service. Please check the IRS website at <http://www.irs.gov/pub/irs-pdf/fw9.pdf> for the latest revision of this form.)

Form CIQ: Conflict of Interest Questionnaire

(please note that the included form may not be the latest revised form issued by the State of Texas Ethics Commission. Please check the Texas Ethics Commission website at <http://www.ethics.state.tx.us> for the latest revision of this form. Please note that Galveston County Purchasing Agent is not responsible for the filing of this form with the Galveston County Clerk per instructions of the State of Texas Ethics Commission.)

Certificate(s) of Insurance: If the person or entity seeking qualified vendor status with the County will be performing work at or on any County owned facility and/or property, Certificate(s) of Insurance are required to be submitted prior to performing any work.

Insurance requirements are as follows:

Public Liability and Property Damage Insurance:

Successful vendor agrees to keep in full force and effect, a policy of public liability and property damage insurance issued by a casualty company authorized to do business in the State of Texas, and in standard form approved by the Board of Insurance Commissioners of the State of Texas, with coverage provisions insuring the public from any loss or damage that may arise to any person or property by reason of services rendered by vendor. Vendor shall at its own expense be required to carry the following minimum insurance coverages:

- For damages arising out of bodily injury to or death of one person in any one occurrence – one hundred thousand and no/100 dollars (\$100,000.00),
- For damages arising out of bodily injury to or death of two or more persons in any one occurrence – three hundred thousand and no/100 dollars (\$300,000.00); and
- For injury to or destruction of property in any one occurrence – one hundred thousand and no/100 dollars (\$100,000.00).

This insurance shall be either on an occurrence basis or on a claims made basis. Provided however, that if the coverage is on a claims made basis, then the vendor shall be required to purchase, at the termination of this agreement, tail coverage for the County for the period of the County's relationship with the vendor under this agreement. Such coverage shall be in the amounts set forth in subparagraphs (1), (2), and (3) above.

Worker's Compensation Insurance:

Successful vendor shall also carry in full force Workers' Compensation Insurance policy(ies), if there is more than one employee, for all employees, including but not limited to full time, part time, and emergency employees employed by the vendor. Current insurance certificates certifying that such policies as specified above are in full force and effect shall be furnished by the vendor to the County.

The County of Galveston shall be named as additional insured on policies listed in subparagraphs above and shall be notified of any changes to the policy(ies) during the contractual period. Insurance is to be placed with insurers having a Best rating of no less than A. The vendor shall furnish the County with certificates of insurance and original endorsements affecting coverage required by these insurance clauses. The certificates and endorsements for each insurance policy are to be signed by a person authorized by the insurer to bind coverage on its behalf. The vendor shall be required to submit annual renewals for the term of any contractual agreement, purchase order or term contract, with Galveston County prior to expiration of any policy.

In addition to the remedies stated herein, the County has the right to pursue other remedies permitted by law or in equity.

The County agrees to provide vendor with reasonable and timely notice of any claim, demand, or cause of action made or brought against the County arising out of or related to utilization of the property. Vendor shall have the right to defend any such claim, demand, or cause of action at its sole cost and expense and within its sole and exclusive discretion. The County agrees not to compromise or settle any claim or cause of action arising out of or related to the utilization of the property without the prior written consent of the vendor.

In no event shall the County be liable for any damage to or destruction of any property belonging to the vendor unless specified in writing and agreed upon by both parties.

Procurement Policy - Special Note:

Understand that it is, according to Texas Local Government Code, Section 262.011, Purchasing Agents, subsections (d), (e), and (f), the sole responsibility of the Purchasing Agent to supervise all procurement transactions.

Therefore, be advised that all procurement transactions require proper authorization in the form of a Galveston County purchase order from the Purchasing Agent's office prior to commitment to deliver supplies, materials, equipment, including contracts for repair, service, and maintenance agreements. Any commitments made without proper authorization from the Purchasing Agent's office, pending Commissioners' Court approval, may become the sole responsibility of the individual making the commitment including the obligation of payment.

Code of Ethics - Statement of Purchasing Policy:

Public employment is a public trust. It is the policy of Galveston County to promote and balance the objective of protecting the County's integrity and the objective of facilitating the recruitment and

retention of personnel needed by Galveston County. Such policy is implemented by prescribing essential standards of ethical conduct without creating unnecessary obstacles to entering public office

Public employees must discharge their duties impartially so as to assure fair competitive access to governmental procurement by responsible contractors. Moreover, they should conduct themselves in such a manner as to foster public confidence in the integrity of the Galveston County procurement organization.

To achieve the purpose of these instructions, it is essential that those doing business with Galveston County also observe the ethical standards prescribed here.

General Ethical Standards: It shall be a breach of ethics to attempt to realize personal gain through public employment with Galveston County by any conduct inconsistent with the proper discharge of the employee's duties.

It shall be a breach of ethics to attempt to influence any public employee of Galveston County to breach the standards of ethical conduct set forth in this code.

It shall be a breach of ethics for any employee of Galveston County to participate directly or indirectly in procurement when the employee knows that.

- The employee or any member of the employee's immediate family has a financial interest pertaining to the procurement.
- A business or organization in which the employee, or any member of the employee's immediate family, has a financial interest pertaining to the procurement.
- Any other person, business or organization with which the employee or any member of the employee's immediate family is negotiating or has an arrangement concerning prospective employment is involved in the procurement.

Gratuities: It shall be a breach of ethics to offer, give or agree to give any employee of Galveston County, or for any employee or former employee of Galveston County to solicit, demand, accept or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation of any part of a program requirement or purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any program requirement or a contract or subcontract, or to any solicitation or proposal therefore pending before this government.

Kickbacks: It shall be a breach of ethics for any payment, gratuity or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor for any contract for Galveston County, or any person associated therewith, as an inducement for the award of a subcontract or order.

Contract Clause: The prohibition against gratuities and kickbacks prescribed above shall be conspicuously set forth in every contract and solicitation by Galveston County.

Confidential Information: It shall be a breach of ethics for any employee or former employee of Galveston County to knowingly use confidential information for actual or anticipated personal gain, or for the actual or anticipated gain of any person

Questions/Concerns:

If you have any questions or concerns regarding the information or instructions contained within this packet, please contact any member of the Purchasing Department staff at (409) 770-5371

CONFLICT OF INTEREST DISCLOSURE REPORTING

~~Proposer may be required under Chapter 176 of the Texas Local Government Code to complete and file a~~
conflict of interest questionnaire (CIQ Form). If so, the completed CIQ Form must be filed with the County Clerk of Galveston County, Texas.

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If Proposer has given an officer of Galveston County or a family member of an officer of Galveston County one or more gifts with an aggregate value of more than \$250.00 during the preceding 12-months, then Proposer **MUST** complete a CIQ Form and file the original of the CIQ Form with the County Clerk of Galveston County

The Galveston County Clerk has offices at the following locations.

Galveston County Clerk
Galveston County Justice Center, Suite 2001
600 59th Street
Galveston, Texas 77551

Galveston County Clerk
North County Annex, 1st Floor
174 Calder Road
League City, Texas 77573

Again, if Proposer is required to file a CIQ Form, the original completed form is filed with the Galveston County Clerk (not the Purchasing Agent).

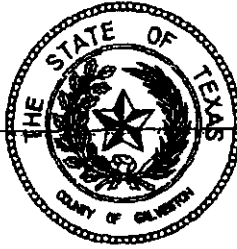
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As well, blank CIQ Forms may be obtained by visiting the Texas Ethics Commission website, specifically at http://www.ethics.state.tx.us/whatsnew/conflict_forms.htm.

Chapter 176 specifies deadlines for the filing of CIQ Forms (both initial filings and updated filings).

It is Proposer's sole responsibility to file a true and complete CIQ Form with the Galveston County Clerk if Proposer is required to file by the requirements of Chapter 176. Proposer is advised that it is an offense to fail to comply with the disclosure reporting requirements dictated under Chapter 176 of the Texas Local Government Code.

If you have questions about compliance with Chapter 176, please consult your own legal counsel. Compliance is the individual responsibility of each person, business, and agent who is subject to Chapter 176 of the Texas Local Government Code.



COUNTY of GALVESTON
Purchasing Department

rev 1.3, March 29, 2010

FORM PEID:	Request for Person-Entity Identification Data
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Instructions: Please type or print clearly when completing sections 1 thru 4 and return completed form to:

Galveston County Purchasing Agent
722 Moody Avenue (21st. Street), 5th Floor
Galveston, Texas 77550
(409) 770-5371 office
(409) 621-7987 fax

1.	Business Name:	matula & matula Construction, Inc.		
	Attention Line:			
2.	Physical Address:	122 West Wey, Ste 305		
	City:	Lake Jackson	State: Tx	Zip+4: 77566
3.	Billing / Remit Address:	same as physical		
	City:		State:	Zip+4
4.	Main Contact Person:	Mike Murphy		
	Main Phone Number:	979-480-0030		
	Fax Number:	979-480-0060		
	E-mail Address:	mm-matula@yahoo.com		

Areas below are for County use only.

Requested By:	Phone / Ext. #	
Department:	Date:	
Action Requested - Check One:	IFAS PEID Vendor Number:	
<input type="checkbox"/> Add New	<input type="checkbox"/> Change Data	<input type="checkbox"/> Re-activate
<input type="checkbox"/> Inactivate	<input type="checkbox"/> Employee	<input type="checkbox"/> Attorney
<input type="checkbox"/> Landlord	<input type="checkbox"/> Foster Parent	<input type="checkbox"/> Refund
<input type="checkbox"/> One Time	<input type="checkbox"/> Foster Child	

**Request for Taxpayer
Identification Number and Certification**

Give form to the
requester. Do not
send to the IRS.

Print or type See Specific Instructions on page 2	Name (as shown on your income tax return) Matula & Matula Construction, Inc.	
	Business name, if different from above	
	Check appropriate box: <input type="checkbox"/> Individual/Sole proprietor <input checked="" type="checkbox"/> Corporation <input type="checkbox"/> Partnership <input type="checkbox"/> Limited liability company Enter the tax classification (D=disregarded entity, C=corporation, P=partnership) ▶ <input type="checkbox"/> Exempt payee <input type="checkbox"/> Other (see instructions) ▶	
	Address (number, street, and apt. or suite no.) 182 West Way, Ste 305	
	City, state, and ZIP code Lake Jackson, TX 77506	
List account number(s) here (optional)		Requester's name and address (optional)

Part I Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. The TIN provided must match the name given on Line 1 to avoid backup withholding. For individuals, this is your social security number (SSN). However, for a resident alien, sole proprietor, or disregarded entity, see the Part I instructions on page 3. For other entities, it is your employer identification number (EIN). If you do not have a number, see *How to get a TIN* on page 3. Note. If the account is in more than one name, see the chart on page 4 for guidelines on whose number to enter.

Social security number
or
Employer identification number 7513848842

Part II Certification

Under penalties of perjury, I certify that:

- 1 The number shown on this form is my correct taxpayer identification number (or I am waiting for a number to be issued to me), and
- 2 I am not subject to backup withholding because: (a) I am exempt from backup withholding, or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding as a result of a failure to report all interest or dividends, or (c) the IRS has notified me that I am no longer subject to backup withholding, and
- 3 I am a U.S. citizen or other U.S. person (defined below)

Certification instructions. You must cross out item 2 above if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return. For real estate transactions, item 2 does not apply. For mortgage interest paid, acquisition or abandonment of secured property, cancellation of debt, contributions to an individual retirement arrangement (IRA), and generally, payments other than interest and dividends, you are not required to sign the Certification, but you must provide your correct TIN. See the instructions on page 4.

Sign Here	Signature of U.S. person ▶ <i>[Signature]</i>	Date ▶ 2-14-11
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General Instructions

Section references are to the Internal Revenue Code unless otherwise noted.

Purpose of Form

A person who is required to file an information return with the IRS must obtain your correct taxpayer identification number (TIN) to report, for example, income paid to you, real estate transactions, mortgage interest you paid, acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA.

Use Form W-9 only if you are a U.S. person (including a resident alien), to provide your correct TIN to the person requesting it (the requester) and, when applicable, to:

- 1 Certify that the TIN you are giving is correct (or you are waiting for a number to be issued),
- 2 Certify that you are not subject to backup withholding, or
- 3 Claim exemption from backup withholding if you are a U.S. exempt payee. If applicable, you are also certifying that as a U.S. person, your allocable share of any partnership income from a U.S. trade or business is not subject to the withholding tax on foreign partners' share of effectively connected income.

Note. If a requester gives you a form other than Form W-9 to request your TIN, you must use the requester's form if it is substantially similar to this Form W-9.

Definition of a U.S. person. For federal tax purposes, you are considered a U.S. person if you are:

- An individual who is a U.S. citizen or U.S. resident alien,
- A partnership, corporation, company, or association created or organized in the United States or under the laws of the United States,
- An estate (other than a foreign estate), or
- A domestic trust (as defined in Regulations section 301.7701-7).

Special rules for partnerships. Partnerships that conduct a trade or business in the United States are generally required to pay a withholding tax on any foreign partners' share of income from such business. Further, in certain cases where a Form W-9 has not been received, a partnership is required to presume that a partner is a foreign person, and pay the withholding tax. Therefore, if you are a U.S. person that is a partner in a partnership conducting a trade or business in the United States, provide Form W-9 to the partnership to establish your U.S. status and avoid withholding on your share of partnership income.

The person who gives Form W-9 to the partnership for purposes of establishing its U.S. status and avoiding withholding on its allocable share of net income from the partnership conducting a trade or business in the United States is in the following cases:

- The U.S. owner of a disregarded entity and not the entity,

• The U.S. grantor or other owner of a grantor trust and not the trust, and

• The U.S. trust (other than a grantor trust) and not the beneficiaries of the trust.

Foreign person. If you are a foreign person, do not use Form W-9. Instead, use the appropriate Form W-8 (see Publication 515, *Withholding of Tax on Nonresident Aliens and Foreign Entities*).

Nonresident alien who becomes a resident alien. Generally, only a nonresident alien individual may use the terms of a tax treaty to reduce or eliminate U.S. tax on certain types of income. However, most tax treaties contain a provision known as a "saving clause." Exceptions specified in the saving clause may permit an exemption from tax to continue for certain types of income even after the payee has otherwise become a U.S. resident alien for tax purposes.

If you are a U.S. resident alien who is relying on an exception contained in the saving clause of a tax treaty to claim an exemption from U.S. tax on certain types of income, you must attach a statement to Form W-9 that specifies the following five items:

1. The treaty country. Generally, this must be the same treaty under which you claimed exemption from tax as a nonresident alien.
2. The treaty article addressing the income.
3. The article number (or location) in the tax treaty that contains the saving clause and its exceptions.
4. The type and amount of income that qualifies for the exemption from tax.
5. Sufficient facts to justify the exemption from tax under the terms of the treaty article.

Example. Article 20 of the U.S.-China income tax treaty allows an exemption from tax for scholarship income received by a Chinese student temporarily present in the United States. Under U.S. law, this student will become a resident alien for tax purposes if his or her stay in the United States exceeds 5 calendar years. However, paragraph 2 of the first Protocol to the U.S.-China treaty (dated April 30, 1984) allows the provisions of Article 20 to continue to apply even after the Chinese student becomes a resident alien of the United States. A Chinese student who qualifies for this exception (under paragraph 2 of the first protocol) and is relying on this exception to claim an exemption from tax on his or her scholarship or fellowship income would attach to Form W-9 a statement that includes the information described above to support that exemption.

If you are a nonresident alien or a foreign entity not subject to backup withholding, give the requester the appropriate completed Form W-8.

What is backup withholding? Persons making certain payments to you must under certain conditions withhold and pay to the IRS 28% of such payments. This is called "backup withholding." Payments that may be subject to backup withholding include interest, tax-exempt interest, dividends, broker and barter exchange transactions, rents, royalties, nonemployee pay, and certain payments from fishing boat operators. Real estate transactions are not subject to backup withholding.

You will not be subject to backup withholding on payments you receive if you give the requester your correct TIN, make the proper certifications, and report all your taxable interest and dividends on your tax return.

Payments you receive will be subject to backup withholding if:

1. You do not furnish your TIN to the requester,
2. You do not certify your TIN when required (see the Part II instructions on page 3 for details),
3. The IRS tells the requester that you furnished an incorrect TIN,

4. The IRS tells you that you are subject to backup withholding because you did not report all your interest and dividends on your tax return (for reportable interest and dividends only), or

5. You do not certify to the requester that you are not subject to backup withholding under 4. above (for reportable interest and dividend accounts opened after 1983 only).

Certain payees and payments are exempt from backup withholding. See the instructions below and the separate instructions for the Requester of Form W-9.

Also see *Special rules for partnerships* on page 1.

Penalties

Failure to furnish TIN. If you fail to furnish your correct TIN to a requester, you are subject to a penalty of \$50 for each such failure unless your failure is due to reasonable cause and not to willful neglect.

Civil penalty for false information with respect to withholding. If you make a false statement with no reasonable basis that results in no backup withholding, you are subject to a \$500 penalty.

Criminal penalty for falsifying information. Willfully falsifying certifications or affirmations may subject you to criminal penalties including fines and/or imprisonment.

Misuse of TINs. If the requester discloses or uses TINs in violation of federal law, the requester may be subject to civil and criminal penalties.

Specific Instructions

Name

If you are an individual, you must generally enter the name shown on your income tax return. However, if you have changed your last name, for instance, due to marriage without informing the Social Security Administration of the name change, enter your first name, the last name shown on your social security card, and your new last name.

If the account is in joint names, list first, and then circle, the name of the person or entity whose number you entered in Part I of the form.

Sole proprietor. Enter your individual name as shown on your income tax return on the "Name" line. You may enter your business, trade, or "doing business as (DBA)" name on the "Business name" line.

Limited liability company (LLC). Check the "Limited liability company" box only and enter the appropriate code for the tax classification ("D" for disregarded entity, "C" for corporation, "P" for partnership) in the space provided.

For a single-member LLC (including a foreign LLC with a domestic owner) that is disregarded as an entity separate from its owner under Regulations section 301.7701-3, enter the owner's name on the "Name" line. Enter the LLC's name on the "Business name" line.

For an LLC classified as a partnership or a corporation, enter the LLC's name on the "Name" line and any business, trade, or DBA name on the "Business name" line.

Other entities. Enter your business name as shown on required federal tax documents on the "Name" line. This name should match the name shown on the charter or other legal document creating the entity. You may enter any business, trade, or DBA name on the "Business name" line.

Note. You are requested to check the appropriate box for your status (individual/sole proprietor, corporation, etc.)

Exempt Payee

If you are exempt from backup withholding, enter your name as described above and check the appropriate box for your status, then check the "Exempt payee" box in the line following the business name, sign and date the form.

Generally, individuals (including sole proprietors) are not exempt from backup withholding. Corporations are exempt from backup withholding for certain payments, such as interest and dividends. **Note.** If you are exempt from backup withholding, you should still complete this form to avoid possible erroneous backup withholding.

The following payees are exempt from backup withholding:

1. An organization exempt from tax under section 501(a), any IRA, or a custodial account under section 403(b)(7) if the account satisfies the requirements of section 401(f)(2).
2. The United States or any of its agencies or instrumentalities.
3. A state, the District of Columbia, a possession of the United States, or any of their political subdivisions or instrumentalities.
4. A foreign government or any of its political subdivisions, agencies, or instrumentalities, or
5. An international organization or any of its agencies or instrumentalities.

Other payees that may be exempt from backup withholding include

6. A corporation,
7. A foreign central bank of issue,
8. A dealer in securities or commodities required to register in the United States, the District of Columbia, or a possession of the United States,
9. A futures commission merchant registered with the Commodity Futures Trading Commission,
10. A real estate investment trust,
11. An entity registered at all times during the tax year under the Investment Company Act of 1940,
12. A common trust fund operated by a bank under section 584(a),
13. A financial institution,
14. A middleman known in the investment community as a nominee or custodian, or
15. A trust exempt from tax under section 664 or described in section 4847.

The chart below shows types of payments that may be exempt from backup withholding. The chart applies to the exempt payees listed above, 1 through 15.

If the payment is for . . .	THEN the payment is exempt for . . .
Interest and dividend payments	All exempt payees except for 9
Broker transactions	Exempt payees 1 through 13. Also, a person registered under the Investment Advisers Act of 1940 who regularly acts as a broker
Barter exchange transactions and patronage dividends	Exempt payees 1 through 5
Payments over \$600 required to be reported and direct sales over \$5,000 ¹	Generally, exempt payees 1 through 7

¹ See Form 1099-MISC, Miscellaneous Income, and its instructions.

² However, the following payments made to a corporation (including gross proceeds paid to an attorney under section 6045(f), even if the attorney is a corporation) and reportable on Form 1099-MISC are not exempt from backup withholding: medical and health care payments, attorneys' fees, and payments for services paid by a federal executive agency.

Part I. Taxpayer Identification Number (TIN)

Enter your TIN in the appropriate box. If you are a resident alien and you do not have and are not eligible to get an SSN, your TIN is your IRS individual taxpayer identification number (ITIN). Enter it in the social security number box. If you do not have an ITIN, see *How to get a TIN* below.

If you are a sole proprietor and you have an EIN, you may enter either your SSN or EIN. However, the IRS prefers that you use your SSN.

If you are a single-member LLC that is disregarded as an entity separate from its owner (see *Limited liability company (LLC)* on page 2), enter the owner's SSN (or EIN, if the owner has one). Do not enter the disregarded entity's EIN. If the LLC is classified as a corporation or partnership, enter the entity's EIN. **Note.** See the chart on page 4 for further clarification of name and TIN combinations.

How to get a TIN. If you do not have a TIN, apply for one immediately. To apply for an SSN, get Form SS-5, Application for a Social Security Card, from your local Social Security Administration office or get this form online at www.ssa.gov. You may also get this form by calling 1-800-772-1213. Use Form W-7, Application for IRS Individual Taxpayer Identification Number, to apply for an ITIN, or Form SS-4, Application for Employer Identification Number, to apply for an EIN. You can apply for an EIN online by accessing the IRS website at www.irs.gov/businesses and clicking on Employer Identification Number (EIN) under Starting a Business. You can get Forms W-7 and SS-4 from the IRS by visiting www.irs.gov or by calling 1-800-TAX-FORM (1-800-829-3676).

If you are asked to complete Form W-9 but do not have a TIN, write "Applied For" in the space for the TIN, sign and date the form, and give it to the requester. For interest and dividend payments, and certain payments made with respect to readily tradable instruments, generally you will have 60 days to get a TIN and give it to the requester before you are subject to backup withholding on payments. The 60-day rule does not apply to other types of payments. You will be subject to backup withholding on all such payments until you provide your TIN to the requester.

Note. Entering "Applied For" means that you have already applied for a TIN or that you intend to apply for one soon.

Caution: A disregarded domestic entity that has a foreign owner must use the appropriate Form W-8.

Part II. Certification

To establish to the withholding agent that you are a U.S. person, or resident alien, sign Form W-9. You may be requested to sign by the withholding agent even if items 1, 4, and 5 below indicate otherwise.

For a joint account, only the person whose TIN is shown in Part I should sign (when required). Exempt payees, see *Exempt Payee* on page 2.

Signature requirements. Complete the certification as indicated in 1 through 5 below.

1. **Interest, dividend, and barter exchange accounts opened before 1984 and broker accounts considered active during 1983.** You must give your correct TIN, but you do not have to sign the certification.

2. **Interest, dividend, broker, and barter exchange accounts opened after 1983 and broker accounts considered inactive during 1983.** You must sign the certification or backup withholding will apply. If you are subject to backup withholding and you are merely providing your correct TIN to the requester, you must cross out item 2 in the certification before signing the form.

4. **Other payments.** You must give your correct TIN, but you do not have to sign the certification unless you have been notified that you have previously given an incorrect TIN. "Other payments" include payments made in the course of the requester's trade or business for rents, royalties, goods (other than bills for merchandise), medical and health care services (including payments to corporations), payments to a nonemployee for services, payments to certain fishing boat crew members and fishermen, and gross proceeds paid to attorneys (including payments to corporations).

5. Mortgage interest paid by you, acquisition or abandonment of secured property, cancellation of debt, qualified tuition program payments (under section 529), IRA, Coverdell ESA, Archer MSA or HSA contributions or distributions, and pension distributions. You must give your correct TIN, but you do not have to sign the certification

For this type of account:	Give name and SSN of:
1 Individual	The individual
2 Two or more individuals (joint account)	The actual owner of the account or, if combined funds, the first individual on the account
3 Custodian account of a minor (Uniform Gift to Minors Act)	The minor
4 a. The usual revocable savings trust (grantor is also trustee)	The grantor-trustee
b. So-called trust account that is not a legal or valid trust under state law	The actual owner
5 Sole proprietorship or disregarded entity owned by an individual	The owner
For this type of account:	Give name and SSN of:
6 Disregarded entity not owned by an individual	The owner
7 A valid trust, estate, or pension trust	Legal entity
8 Corporate or LLC electing corporate status on Form 8832	The corporation
9 Association, club, religious, charitable, educational, or other tax-exempt organization	The organization
10 Partnership or multi-member LLC	The partnership
11 A broker or registered nominee	The broker or nominee
12 Account with the Department of Agriculture in the name of a public entity (such as a state or local government, school district, or prison) that receives agricultural program payments	The public entity

* List first and circle the name of the trust, estate, or pension trust. (Do not furnish the TIN of the personal representative or trustee unless the legal entity itself is not designated in the account title.) Also see Special rules for partnerships on page 1.

Identity theft occurs when someone uses your personal information such as your name, social security number (SSN), or other identifying information, without your permission, to commit fraud or other crimes. An identity thief may use your SSN to get a job or may file a tax return using your SSN to receive a refund.

- Protect your SSN,
- Ensure your employer is protecting your SSN, and
- Be careful when choosing a tax preparer

Victims of identity theft who are experiencing economic harm or a system problem, or are seeking help in resolving tax problems that have not been resolved through normal channels, may be eligible for Taxpayer Advocate Service (TAS) assistance. You can reach TAS by calling the TAS toll-free case intake line at 1-877-777-4778 or TTY/TDD 1-800-829-4059.

The IRS does not initiate contacts with taxpayers via emails. Also, the IRS does not request personal detailed information through email or ask taxpayers for the PIN numbers, passwords, or similar secret access information for their credit card, bank, or other financial accounts.

If you receive an unsolicited email claiming to be from the IRS, forward this message to phishing@irs.gov. You may also report misuse of the IRS name, logo, or other IRS personal property to the Treasury Inspector General for Tax Administration at 1-800-366-4484. You can forward suspicious emails to the Federal Trade Commission at: spam@uce.gov or contact them at www.consumer.gov/idtheft or 1-877-IDTHEFT1438-4338

Visit the IRS website at www.irs.gov to learn more about identity theft and how to reduce your risk.

Section 6109 of the Internal Revenue Code requires you to provide your correct TIN to persons who must file information returns with the IRS to report interest, dividends, and certain other income paid to you, mortgage interest you paid, the acquisition or abandonment of secured property, cancellation of debt, or contributions you made to an IRA, or Archer MSA or HSA. The IRS uses the numbers for identification purposes and to help verify the accuracy of your tax return. The IRS may also provide this information to the Department of Justice for civil and criminal litigation, and to cities, states, the District of Columbia, and U.S. possessions to carry out their tax laws. We may also disclose this information to other countries under a tax treaty, to federal and state agencies to enforce federal nontax criminal laws, or to federal law enforcement and intelligence agencies to combat terrorism.

You must provide your TIN whether or not you are required to file a tax return. Payors must generally withhold 28% of taxable interest, dividend, and certain other payments to a payee who does not give a TIN to a payer. Certain penalties may also apply.

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor or other person doing business with local governmental entity

This questionnaire reflects changes made to the law by H B 1491, 80th Leg, Regular Session
This questionnaire is being filed in accordance with Chapter 176, Local Government Code by a person who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the person meets requirements under Section 176.006(a)
By law this questionnaire must be filed with the records administrator of the local governmental entity not later than the 7th business day after the date the person becomes aware of facts that require the statement to be filed See Section 176.006, Local Government Code
A person commits an offense if the person knowingly violates Section 176.006, Local Government Code. An offense under this section is a Class C misdemeanor.

OFFICE USE ONLY

Date Received

1 Name of person who has a business relationship with local governmental entity.

Jon Matulew

2 ☐ Check this box if you are filing an update to a previously filed questionnaire.

(The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date the originally filed questionnaire becomes incomplete or inaccurate)

3 Name of local government officer with whom filer has employment or business relationship

Name of Officer

This section (item 3 including subparts A, B, C & D) must be completed for each officer with whom the filer has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary

A. Is the local government officer named in this section receiving or likely to receive taxable income, other than investment income, from the filer of the questionnaire?

☐ Yes

☒ No

B. Is the filer of the questionnaire receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer named in this section AND the taxable income is not received from the local governmental entity?

☐ Yes

☒ No

C. Is the filer of this questionnaire employed by a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership of 10 percent or more?

☐ Yes

☒ No

D. Describe each employment or business relationship with the local government officer named in this section

4

Jon Matulew
Signature of person doing business with the governmental entity

2-14-11
Date

Adopted 06/29/2007

INSTRUCTIONS TO BIDDERS

1. BID PACKAGE

This bid package consists of the Invitation to Bid, the Instructions to Bidders, the bid proposal, the unexecuted Notice of Contract Award, the Special and General Terms and Conditions, any drawings and specifications, and any addenda which the County may issue prior to receipt of bids.

2. REVIEW

Each bidder is required to thoroughly review this entire bid packet to familiarize themselves with the bidding procedures, the plans and specifications for the requested work as well as the terms, and conditions of the contract the successful bidder will execute with the County.

3. PRE-BID MODIFICATIONS

Any modification to any portion of this bid packet will be in writing in the form of addenda. All addenda will be mailed to all holders of plans and specifications at least three (3) days prior to the date of opening bids. Bidders should inquire whether addenda have been issued inasmuch as Bidders shall be bound by such addenda whether or not received.

4. BID FORMS

All bids must be submitted on forms furnished by County.

5. TIME FOR RECEIVING BIDS

Bids received prior to the submission deadline will be maintained unopened until the specified time for bid opening. If the bidder fails to identify the Bid Number on the outside of the envelope as required, the Purchasing Agent will open the

envelope for the sole purpose of identifying the Bid Number for which the submission was made. The envelope will then be resealed. No liability will attach to a County officer or employee for the premature opening of a bid.

6. TERM

The term of the contract will begin on the date of execution by the County and will terminate on the date specified in the document entitled "Contract Award".

7. AWARD OF BID

The award will be to the responsive, responsible bidder(s) who submits the lowest and best bid. Criteria utilized for determining responsibility of bidder(s) includes, the bidder's experience, skill, ability, business judgment, financial capacity, integrity, honesty, possession of the necessary facilities or equipment, previous performance, reputation, promptness and any other factor deemed relevant by the County. The bidder shall furnish any information requested by the County in order for the County to determine whether a bidder is responsible.

8. SUBSTITUTES

It is not the County's intent to discriminate against any materials of equal merit to those specified, however, should the Bidder desire to use any substitutions, prior written approval shall be obtained from the County sufficiently in advance in order that an addendum might be issued.

9. REJECTION OF BIDS

The County, acting through its County Commissioners' Court reserves the right to: (1) reject any and all bids and waive any informality in the bids received, (2) disregard the bid of any Bidder determined to be not responsible.

10. BID BOND

Each Bidder will be required to furnish with his bid a Cashier's or Certified Check from any bank in the State of Texas or an acceptable Bidder's Bond for the sum of 5% of the total highest bid payable to the County of Galveston. The certified check or Bid Bond will be returned to the unsuccessful Bidder(s) and to the successful Bidder on the completion of execution of all contract documents and the furnishing of any necessary payment and performance bonds and insurance certificates.

The bid bond or check will be forfeited to the County as liquidated damages should the successful Bidder fail to give the required payment and performance bonds and insurance certificates and execute the contract with the said County within thirty (30) days after receiving notice of acceptance of its bid.

11 PERFORMANCE AND PAYMENT BOND

V.T.C.A., Government Code Chapter 2253, requires a Performance Bond (for contracts in excess of \$100,000) and a Payment Bond (for contracts in excess of \$25,000), be provided by the Contractor. Each bond required shall be equal to the total contract price and shall be issued by a satisfactory surety company. The bond(s) will remain in full force and effect until final completion and acceptance of the work.

The bond(s) are to be made payable to the County of Galveston. They shall be written on forms provided by the surety for public works projects in Texas. They shall also be executed by a surety and licensed to do business in Texas.

Bidders should familiarize themselves with the entire provisions of V.T.C.A.,

Chapter 2253 and the penalties provided for its violations before submitting their bid

12 CONTRACT

The contract shall become effective upon the Commissioners' Court's execution of same. The contract documents shall consist of the contract, the general and special conditions, the drawings, the bid package, any addenda issued, and any change orders issued during the work

13. TAX EXEMPTION

This contract is issued by a political subdivision of the State of Texas which qualifies for exemption from sales, excise and use taxes pursuant to Section 151.309, Texas Tax Code

The Contractor performing this contract may purchase, rent or lease all materials, supplies, equipment used or consumed in the performance of this contract by issuing to his supplier an exemption certificate complying with State Comptroller's Ruling #95-9.07 in lieu of the tax Any such exemption certificate issued by the Contractor in lieu of the tax shall be subject to the provisions of the State Comptroller's ruling #95.05 (effective October 2, 1968) or as hereafter amended

SECTION II

Bid Proposal

Contract Award

BID NUMBER # B111026

BID PROPOSAL

The bidder hereby proposes to furnish all labor, material, equipment and incidentals for

SUNNYVIEW AND SKYVIEW RECONSTRUCTION

Enclosed is a Certified Check, Cashier's Check or Bid Bond in the sum of 5% of the greatest amount bid

Bidder agrees to perform in accordance with the requirements of the contract documents in consideration of payment by the County of the prices in this proposal.

**IN CASE OF DISCREPANCY BETWEEN UNIT PRICES AND EXTENDED PRICES,
UNIT PRICES WILL GOVERN.**

This bid sheet must be completely filled out in ink or typewritten with any necessary supplemental information attached.

The undersigned hereby agrees to all of the foregoing terms and provisions and to all terms and provisions of the contract, if awarded, which includes all provisions of Sections I - VI of this bid package

BIDDER Matula & Matula Construction, Inc.

SIGNATURE 

PRINT NAME Jon Matula

TITLE President

ADDRESS 122 West Way Suite 325

CITY, STATE Lake Jackson, Tx. 77566

ZIP 77566

TELEPHONE 979-480-0030

FAX NO 979-480-0060

DATE 1-25-2011

TAX I.D. No. 75-2848842

BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
A) PAVING AND DRAINAGE BID ITEMS						
1	Mobilization, complete in place the sum of	L S	1	Thirty thousand five hundred seventy-six DOLLARS AND No CENTS	\$30,576.00	\$30,576.00
2	Traffic Control, complete in place the sum of	MO	4	Fifteen thousand seven hundred sixty-two DOLLARS AND Fifty CENTS	\$15,762.50	\$63,050.00
3	Milling of existing asphalt and base material, complete in place the sum of	S Y	6,700	One AND Ninety DOLLARS CENTS	\$1.90	\$12,730.00
4	6" concrete curb, complete in place the sum of	L F	1,475	Three AND Twenty DOLLARS CENTS	\$3.20	\$4,720.00
5	Re-Grade Roadside Ditches, complete in place the sum of	L F	3,334	Six AND Eighty DOLLARS CENTS	\$6.80	\$22,671.20
6	Stabilized Construction Exit, complete in place the sum of	EA	4	One thousand seven hundred sixty-four DOLLARS AND No CENTS	\$1,764.00	\$7,056.00
7	Reinforced filter fabric barrier (for SWPPP), complete in place the sum of	L F	648	One AND Fifty DOLLARS CENTS	\$1.50	\$972.00
8	Inlet Protection Barrier, complete in place the sum of	EA	30	Fifty-eight AND Eighty DOLLARS CENTS	\$58.80	\$1,764.00
9	Roadway excavation, complete in place the sum of	C Y	12,193	Eight AND Ninety DOLLARS CENTS	\$8.90	\$108,517.70
10	4" Concrete Sidewalk with Ramps, complete in place the sum of	S Y	950	Forty AND Ten DOLLARS CENTS	\$40.10	\$38,095.00
11	6-in Reinforced Concrete Driveways including Subgrade, complete in place the sum of	S Y	1,332	Forty-five AND DOLLARS CENTS	\$45.90	\$61,138.80
12	8-in Reinforced Concrete Paving, complete in place the sum of	S Y	7,100	Thirty-four AND Forty-three DOLLARS CENTS	\$34.43	\$244,453.00
13	6-in Thick Lime Stabilized Subgrade including lime (6% lime), complete in place the sum of	S Y	7,716	Four AND No DOLLARS CENTS	\$4.00	\$30,864.00
14	Pavement Headers, complete in place the sum of	L F	371	Twelve AND No DOLLARS CENTS	\$12.00	\$4,452.00

BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
15	5'x5' Type H-2 Inlet, complete in place the sum of	EA.	3	One thousand six hundred fifty-six AND Ten DOLLARS CENTS	\$1,656.10	\$4,968.30
16	7'x5' Type H-2 Inlet, complete in place the sum of	EA	4	Two thousand six hundred thirty-seven AND Nine DOLLARS CENTS	\$2,637.90	\$10,551.60
17	Type A Inlet, complete in place the sum of	EA	6	Two thousand fifty-six AND Thirty DOLLARS CENTS	\$2,056.30	\$12,337.80
18	Remove and Re-Place State 2 of H-2 Inlet, complete in place the sum of	EA	1	One thousand seven hundred sixty-seven AND Forty DOLLARS CENTS	\$1,767.40	\$1,767.40
19	Adjust Existing Inlet & Manhole Rim & Cover, complete in place the sum of	EA	5	Six hundred fifteen AND Ten DOLLARS CENTS	\$615.10	\$3,075.50
20	18" RCP Driveway Culvert, complete in place the sum of	LF	679	Thirty AND Forty DOLLARS CENTS	\$30.40	\$20,441.60
21	24" RCP Driveway Culvert, complete in place the sum of	LF	30	Forty AND Ninety DOLLARS CENTS	\$40.90	\$1,227.00
22	18" RCP Storm Sewer, complete in place the sum of	LF	20	Thirty-four AND Thirty DOLLARS CENTS	\$34.30	\$686.00
23	18" x 28" RCP Storm Sewer, complete in place the sum of	LF	92	Eighty AND Fifty DOLLARS CENTS	\$80.50	\$7,406.00
24	Re-construct Wood Pedestrian Bridge, complete in place the sum of	EA	2	Three thousand eight hundred forty AND Seventy DOLLARS CENTS	\$3,844.70	\$7,689.40
25	24" RCP Storm Sewer, complete in place the sum of	LF	298	Fifty-two AND Twenty DOLLARS CENTS	\$52.20	\$15,555.60
26	Project Identification Sign, complete in place the sum of	EA	1	Eight hundred eighty-two AND No DOLLARS CENTS	\$882.00	\$882.00
27	Sodding, complete in place the sum of	SY	7,250	Two AND Fifty DOLLARS CENTS	\$2.50	\$18,125.00
28	Remove and Re-Place Fire Hydrant, complete in place the sum of	EA	1	Two thousand nine hundred eighty-eight AND Forty DOLLARS CENTS	\$2,988.40	\$2,988.40

BID PROPOSAL
SUNNYVIEW AND SKYVIEW RECONSTRUCTION

ITEM NO	DESCRIPTION	UNIT	QUAN	UNIT PRICE IN WORDS	UNIT PRICES	TOTAL AMOUNT
29	Remove and Replace Inlet Top and Cover, complete in place the sum of	EA	1	Nine hundred nine AND Ten DOLLARS CENTS	\$909.10	\$909.10
30	Brace, support and protect utility structures as per Utility Company's requirements, complete in place the sum of	EA	2	Eight hundred AND No DOLLARS CENTS	\$800.00	\$1,600.00
31	Adjust Water Lines, all sizes, complete in place the sum of	L F	100	Twenty-seven AND No DOLLARS CENTS	\$27.00	\$2,700.00
32	Adjust sanitary sewer services, all sizes, the complete in place the sum of	L F	100	Thirty-five AND No DOLLARS CENTS	\$35.00	\$3,500.00
33	Wet condition bedding for storm sewer installation, all sizes, all depths, consisting of 12" crushed stone foundation, complete in place the sum of	L F	100	Five AND Twenty DOLLARS CENTS	\$5.20	\$520.00
34	Extra cement stabilized sand backfill, complete in place the sum of	C Y	100	Thirty-four AND No DOLLARS CENTS	\$34.00	\$3,400.00
35	Extra bank sand backfill, complete in place the sum of	C Y	100	Seven AND Sixty DOLLARS CENTS	\$7.60	\$760.00
36	Replacement of small signs, complete in place the sum of	EA	4	Three hundred fifty AND No DOLLARS CENTS	\$350.00	\$1,400.00
37	Well pointing for storm sewer, complete in place the sum of.	L.F.	100	Twenty-eight AND No DOLLARS CENTS	\$28.00	\$2,800.00
TOTAL BID					755,351.60 \$ 756,550.40	

State of Texas Tax Statement of Materials and other charges

The cost of in-place materials to be
incorporated into the project

412,606.53 ~~TH~~
\$ 413,805.33

The cost of labor, profit, materials
not in-place and all other charges

\$ 342,745.07

TOTAL: (Must agree with bid)

755,351.60 ~~TH~~
\$ 756,550.40

CONTRACT AWARD

CONTRACT FOR: SUNNYVIEW AND SKYVIEW RECONSTRUCTION

THIS CONTRACT IS ENTERED INTO BETWEEN GALVESTON COUNTY AND THE CONTRACTOR NAMED BELOW PURSUANT TO SUBCHAPTER B, CHAPTER 271, TEXAS LOCAL GOVERNMENT CODE, AND THE REFERENCED INVITATION TO BID

Contract No 10A

Bid No B111026

Contractor Matula & Matula Construction, Inc

The Specifications and Drawings are enumerated as follows:

Standard Specifications **City of Friendswood Technical Specifications**

Special Provisions

Special Items

DRAWINGS 1 Thru 25
ADDENDA _____

Contract Award (continued)

Sections I (Invitation to Bid, General Provisions; Instructions to Bidders; Vendor Qualification Packet), II (Bid Proposal, Contract Award), III (Special Terms and Conditions, [including Addenda], Wage Rates & AIA Forms), IV (General Terms and Conditions), V (Specifications) and VI (Plans) attached to this Contract Award are all made a part of this Contract and collectively evidence and constitute the entire contract. Contractor shall furnish all materials, perform all of the work required to be done and do everything else required by these documents.

Time of Completion. The Contractor shall complete the work within 120 Calendar Days of the issuance of the notice to proceed. The time set forth for completion of the work is an essential element of the Contract.

The Contract Sum. The County shall pay the Contractor for performance of the Contract, the sum of Seven Hundred Fifty Five Thousand Three Hundred Fifty One Dollars and Sixty Cents (\$ 755,351.60), payments to be made as described herein.

Performance Bond required: (x) yes () no
Payment Bond required: (x) yes () no

This Contract is issued pursuant to award made by Commissioners' Court on, Feb. 9, 2011.

EXECUTED this 22 day of March, 2011.

COUNTY OF GALVESTON, TEXAS

BY Mark Henry, County Judge

ATTEST

Dwight Sullivan, County Clerk

By: Brandy Chapman Deputy Matula & Matula Construction, Inc.
Brandy Chapman

BY.

Jon Matula
Signature Title
Jon Matula
Printed Name



TEXAS STATUTORY PERFORMANCE BOND
(PUBLIC WORKS)

KNOW ALL MEN BY THESE PRESENTS That MATULA & MATULA CONSTRUCTION, INC.

(hereinafter called the Principal), as Principal, and International Fidelity Insurance Company

a corporation organized and existing under the laws of the State New Jersey licensed to do business in the State of Texas and admitted to write bonds, as surety (hereinafter called the Surety), are held and firmly bound unto Galveston County

(hereinafter called the Oblige), in the amount of

SEVEN HUNDRED FIFTY FIVE THOUSAND THREE HUNDRED FIFTY ONE AND 60/100 (Dollars), (\$ **\$755,351.60**) for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents

WHEREAS, the Principal has entered into a certain contract with the Oblige, dated the 9 day of Feb, 2011, for

Sunnyview and Skyview Reconstruction

which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, That if the said Principal shall faithfully perform the work in accordance with the plans, specifications and contract documents, then this obligation shall be null and void, otherwise to remain in full force and effect,

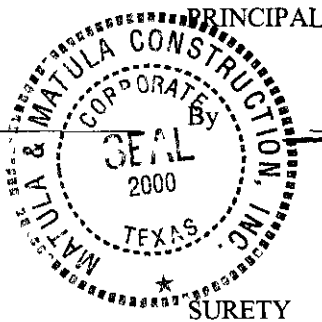
PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code and all liabilities on this bond shall be determined in accordance with the provisions, conditions and limitations of said Chapter to the same extent as if it were copied at length herein

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this 9 day of Feb, 2011

ATTEST

By

[Signature]



SURETY

MATULA & MATULA CONSTRUCTION, INC.

APPROVED AS TO FORM

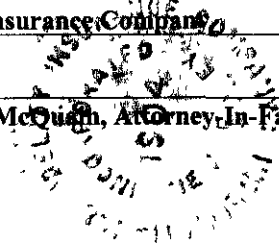
By

Obligee

By

International Fidelity Insurance Company

Kevin McQuinn, Attorney-In-Fact



Bond No. HSIFSU0555183

TEXAS STATUTORY PAYMENT BOND

(PUBLIC WORKS)

KNOW ALL MEN BY THESE PRESENTS That MATULA & MATULA CONSTRUCTION, INC.

(hereinafter called the Principal), as Principal, and International Fidelity Insurance Company

a corporation organized and existing under the laws of the State of New Jersey licensed to do business in the State of Texas and admitted to write bonds, as surety (hereinafter called the Surety), are held and firmly bound unto Galveston County

(hereinafter called the Obligor), in the amount of

SEVEN HUNDRED FIFTY FIVE THOUSAND THREE HUNDRED FIFTY ONE AND 60/100 (Dollars),

(\$ \$755,351.60) for the payment whereof, the said Principal and Surety bind themselves, and their heirs, administrators, executors, successors, and assigns, jointly and severally, firmly by these presents

WHEREAS, the Principal has entered into a certain contract with the Obligor, dated the 9 day of Feb, 2011, for

Sunnyview and Skyview Reconstruction

which contract is hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, That if the said Principal shall pay all claimants supplying labor and material to him or a subcontractor in the prosecution of the work provided for in said contract, then this obligation will be null and void, otherwise to remain in full force and effect,

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code and all liabilities on this bond shall be determined in accordance with the provisions, conditions and limitations of said Chapter to the same extent as if it were copied at length herein

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this 9 day of Feb, 2011

ATTEST

By

[Signature]

PRINCIPAL

MATULA & MATULA CONSTRUCTION, INC.

By

[Signature]

SURETY

International Fidelity Insurance Company

By

[Signature]

Kevin McQuinn, Attorney-in-Fact

APPROVED AS TO FORM

Obligor

POWER OF ATTORNEY INTERNATIONAL FIDELITY INSURANCE COMPANY

HOME OFFICE, ONE NEWARK CENTER, 20TH FLOOR
NEWARK, NEW JERSEY 07102-5207

KNOW ALL MEN BY THESE PRESENTS. That **INTERNATIONAL FIDELITY INSURANCE COMPANY**, a corporation organized and existing laws of the State of New Jersey, and having its principal office in the City of Newark, New Jersey does hereby constitute and appoint

KEVIN MCQUAIN, RHESA F BOULTON, ELAINE LEWIS, ROSALYN D HASSELL, SCOTT D CHAPMAN,
JUSTIN MCQUAIN

The Woodlands, TX

its true and lawful attorney(s)-in-fact to execute, seal and deliver for and on its behalf as surety, any and all bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof, which are or may be allowed, required or permitted by law statute, rule, regulation, contract or otherwise, and the execution of such instrument(s) in pursuance of these presents, shall be as binding upon the said **INTERNATIONAL FIDELITY INSURANCE COMPANY**, as fully and amply, to all intents and purposes as if the same had been duly executed and acknowledged by its regularly elected officers at its principal office

This Power of Attorney is executed, and may be revoked, pursuant to and by authority of Article 3-Section 3, of the By-Laws adopted by the Board of Directors of **INTERNATIONAL FIDELITY INSURANCE COMPANY** at a meeting called and held on the 7th day of February 1974

The President or any Vice President Executive Vice President Secretary or Assistant Secretary, shall have power and authority

(1) To appoint Attorneys-in-fact, and to authorize them to execute on behalf of the Company, and attach the Seal of the Company thereto bonds and undertakings contracts of indemnity and other writings obligatory in the nature thereof and,

(2) To remove at any time any such attorney-in-fact and revoke the authority given

Further this Power of Attorney is signed and sealed by facsimile pursuant to resolution of the Board of Directors of said Company adopted at a meeting duly called and held on the 29th day of April 1982 of which the following is a true excerpt

Now therefore the signatures of such officers and the seal of the Company may be affixed to any such power of attorney or any certificate relating thereto by facsimile and any such power of attorney or certificate bearing such facsimile signatures or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached



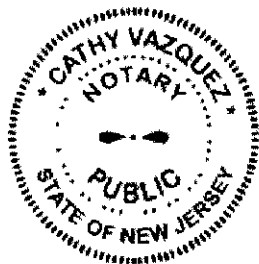
IN TESTIMONY WHEREOF **INTERNATIONAL FIDELITY INSURANCE COMPANY** has caused this instrument to be signed and its corporate seal to be affixed by its authorized officer this 16th day of October, A D 2007

INTERNATIONAL FIDELITY INSURANCE COMPANY

STATE OF NEW JERSEY
County of Essex

Secretary

On this 16th day of October 2007, before me came the individual who executed the preceding instrument, to me personally known and being by me duly sworn said the he is the therein described and authorized officer of the **INTERNATIONAL FIDELITY INSURANCE COMPANY**, that the seal affixed to said instrument is the Corporate Seal of said Company that the said Corporate Seal and his signature were duly affixed by order of the Board of Directors of said Company



IN TESTIMONY WHEREOF, I have hereunto set my hand affixed my Official Seal,
at the City of Newark New Jersey the day and year first above written

A NOTARY PUBLIC OF NEW JERSEY
My Commission Expires March 27, 2014

CERTIFICATION

I the undersigned officer of **INTERNATIONAL FIDELITY INSURANCE COMPANY** do hereby certify that I have compared the foregoing copy of the Power of Attorney and affidavit and the copy of the Section of the By-Laws of said Company as set forth in said Power of Attorney with the ORIGINALS ON IN THE HOME OFFICE OF SAID COMPANY, and that the same are correct transcripts thereof and of the whole of the said originals, and that the said Power of Attorney has not been revoked and is now in full force and effect

IN TESTIMONY WHEREOF I have hereunto set my hand this

day of

Feb, 2011

Assistant Secretary

IMPORTANT NOTICE

TO OBTAIN INFORMATION OR MAKE A COMPLAINT:

You may call International Fidelity Insurance Company's toll-free telephone number for information or to make a complaint at:

800-333-4167

You may also write to International Fidelity Insurance Company at:

Attn: Claims Department
One Newark Center, 20th Floor
Newark, NJ 07102

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at.

800-252-3439

You may write the Texas Department of Insurance at:

P.O. Box 149104
Austin, TX 78714-9104
Fax: (512) 475-1771
Web: <http://www.tdi.state.tx.us>
E-mail: ConsumerProtection@tdi.state.tx.us

PREMIUM OR CLAIM DISPUTES:

Should you have a dispute concerning your premium or about a claim you should contact your Agent or International Fidelity Insurance Company first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR BOND.

This notice is for information only and does not become a part or a condition of the attached document and is given to comply with Texas legal and regulatory requirements.



CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

03/02/2011

PRODUCER Phone (281) 464-3383 Fax (281) 464-3050
BARRY INSURANCE GROUP
12621 FEATHERWOOD DR STE 115
HOUSTON TX 77034

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION
ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE
HOLDER THIS CERTIFICATE DOES NOT AMEND, EXTEND OR
ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW

INSURED

MATULA & MATULA CONSTRUCTION, INC
122 W WAY ST STE 325
LAKE JACKSON TX 77566-5251

INSURERS AFFORDING COVERAGE

NAIC #

INSURER A Lexington Insurance Company
INSURER B Truck Insurance Exchange
INSURER C Fireman's Fund Insurance Company
INSURER D Texas Mutual Insurance Company
INSURER E Travelers Lloyds Insurance Company

19437

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS

INSR LTR	ADD'L INSR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A		GENERAL LIABILITY	023462692	07/01/10	07/01/11	EACH OCCURRENCE	\$ 1,000,000
	<input checked="" type="checkbox"/>	COMMERCIAL GENERAL LIABILITY				DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 100,000
	<input type="checkbox"/>	CLAIMS MADE <input checked="" type="checkbox"/> OCCUR				MED EXP (Any one person)	\$ 5,000
						PERSONAL & ADV INJURY	\$ 1,000,000
						GENERAL AGGREGATE	\$ 2,000,000
						PRODUCTS - COMP/OP AGG	\$ 2,000,000
							\$
						GEN'L AGGREGATE LIMIT APPLIES PER <input type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	
B		AUTOMOBILE LIABILITY	601787028	10/02/10	10/02/11	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
	<input type="checkbox"/>	ANY AUTO				BODILY INJURY (Per person)	\$
	<input type="checkbox"/>	ALL OWNED AUTOS				BODILY INJURY (Per accident)	\$
	<input checked="" type="checkbox"/>	SCHEDULED AUTOS				PROPERTY DAMAGE (Per accident)	\$
	<input checked="" type="checkbox"/>	HIRED AUTOS					
	<input checked="" type="checkbox"/>	NON-OWNED AUTOS					
		GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	\$
		<input type="checkbox"/> ANY AUTO				OTHER THAN EA ACC	\$
						AUTO ONLY AGG	\$
C		EXCESS / UMBRELLA LIABILITY	PFX000-4806-7482	07/01/10	07/01/11	EACH OCCURRENCE	\$ 5,000,000
	<input checked="" type="checkbox"/>	OCCUR <input type="checkbox"/> CLAIMS MADE				AGGREGATE	\$ 5,000,000
							\$
	<input type="checkbox"/>	DEDUCTIBLE					\$
	<input type="checkbox"/>	RETENTION \$					\$
D		WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	TSF-0001110108	10/03/10	10/03/11	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTHER	
	<input type="checkbox"/>	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under SPECIAL PROVISIONS below				E L EACH ACCIDENT	\$ 1,000,000
						E L DISEASE-EA EMPLOYEE	\$ 1,000,000
						E L DISEASE-POLICY LIMIT	\$ 1,000,000
E		OTHER Inland Marine Equipment Coverage	QT6604245L134	10/02/10	10/02/11	Equipment Floater	

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/ SPECIAL PROVISIONS

Additional insured with waiver of subrogation in favor of owner

Description of Operations Sunnyview and Skyview Reconstruction

CERTIFICATE HOLDER

Galveston County
722 Moody, Fifth Floor
Galveston TX 77550

Attention

ACORD 25 (2009/01)

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER IT'S AGENTS OR REPRESENTATIVES

AUTHORIZED REPRESENTATIVE

Certificate # 265

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The ACORD name and logo are registered marks of ACORD

IMPORTANT

If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

DISCLAIMER

This Certificate of Insurance does not constitute a contract between the issuing insurer(s), authorized representative or producer, and the certificate holder, nor does it affirmatively or negatively amend, extend or alter the coverage afforded by the policies listed thereon.

SECTION III

Special Terms and Conditions

SPECIAL TERMS AND CONDITIONS

CONTRACT FOR: SUNNYVIEW AND SKYVIEW RECONSTRUCTION

In the event of a conflict between any provision of these Special Terms and Conditions and any other section or provision of this bid package or a contract awarded under this bid, the Special Terms and Provisions control. If you need additional information, contact the Project Administrator

SITE INSPECTION:

The site may be inspected Monday thru Sunday between 7:30 A.M. and 30 minutes before dusk

SCOPE:

It is the intent of these specifications to secure a contract to furnish labor, equipment, materials and incidentals as required to design and reconstruct approximately 1300 feet of Sunnyview and Skyview from FM 518 to Quaker Dr. The new sections will be 2-lane concrete roadways.

The work to be performed will be administered by the County's Program Administrator, who, for purposes of this Contract is

Name: G. Michael Fitzgerald, P.E., County Engineer

Address: 123 Rosenberg, Suite 4157, Galveston, Texas 77550

Telephone No.: (409) 770-5549

GENERAL

This project consists of the design and reconstruction of approximately 1300 feet of Sunnyview and Skyview from FM 518 to Quaker Dr. Currently both streets are asphalt roadways with open ditches. The new sections will be 2-lane curb and gutter concrete roadways with storm sewers and sidewalks.

The Contractor will be required to make submittals on all materials for pre-delivery approval.

All advance warning signs to be set three weeks prior to the start of construction activities and to remain in place until all construction activities are complete and accepted by Galveston County. The contractor will send door hangers to residents along the roadway two weeks prior to the start of construction activities supplying them

of information regarding the project.

For this project the contractor will furnish and maintain all barricades and warning signs, including all temporary and portable traffic control devices necessary during the various phases of construction. These barricades and warning signs shall be constructed and placed in accordance with the barricades and construction standards, latest Texas MUTCD, and typical construction layouts, or as directed by the Engineer

The Contractor shall be responsible for controlling excess dust and loose rocks produced by the work. The Contractor shall use methods which are reasonable and practical to control these problems

MATERIAL STORAGE

Mixing of materials, storing of materials, storing of equipment, or repairing of equipment on top of pavement or bridge decks will not be permitted unless specifically authorized by the ENGINEER. Permission will be granted to store materials on subject surfaces if no damage or discoloration will result.

MATERIAL HAULING

Hauling of materials will not be paid for directly, but shall be considered as subsidiary work pertaining to the respective bid items. Haul routes for full and empty loads shall be restricted to State Highways. Hauling of equipment is also restricted to State Highways

VERTICAL AND HORIZONTAL CONTROL

Vertical and horizontal control points will be provided by Galveston County. All construction surveying and staking will be done by the contractor.

MATERIALS TESTING

Galveston County will pay for and conduct materials testing for the County's benefit and use in determining whether to accept or reject the materials or finished products. Contractor is responsible for assuring all materials and finished products comply with the Drawings and Specifications. Test results from the County's testing will be made available to Contractor.

SUSPENSION OF WORK

In case of suspension of work for any cause, the contractor shall be responsible for the preservation of all materials. He shall provide suitable drainage of the roadway and shall erect temporary structures where required. The contractor shall maintain the roadway in good and passable condition until final acceptance.

ABATEMENT AND MITIGATION OF EXCESSIVE OR UNNECESSARY CONSTRUCTION NOISE

Throughout all phases of the construction of this project, including the moving, unloading, operating and handling of construction equipment prior to commencement of work, during the project and after the work is complete, the contractor shall make every reasonable effort to minimize the noise imposed upon the immediate neighborhood surrounding the area of construction. Particular and special efforts shall be exercised by the Contractor to avoid the creation of unnecessary noise impacts on adjacent sensitive receptors in the placement of non-mobile equipment such as air compressors, generators, pumps, etc. The placement of temporary parked mobile equipment with the engine running shall be such as to cause the least disruption of normal adjacent activities not associated with the work to be performed by the contractor.

All equipment associated with the work shall be equipped with components designed by the manufacturer wholly or in part to suppress excessive noise and these components shall be maintained in their original operating condition considering normal depreciation. Noise-attenuation devices installed by the manufacturer such as mufflers, engine covers, insulation, etc., shall not be removed nor rendered ineffectual nor be permitted to remain off the equipment while the equipment is in use.

WORKING HOURS

Work shall not be commenced by the contractor before sunrise and shall be so conducted that all equipment is off the road and safely stored by sunset. Specific permission shall be obtained by the contractor from the Engineer for work during those hours between 7:00 P M and 6:00 A M of the following day.

LIQUIDATED DAMAGES

Liquidated damages in the amount of One Thousand dollars (\$ 1000) per day will be assessed for each day beyond the time of completion that the work is not substantially complete.

TIME OF COMPLETION

Time of Completion of this project is 120 calendar days from the date of the Notice to Proceed.

PIPELINE, UTILITY LOCATIONS AND CONTRACTOR RESPONSIBILITY

An effort to determine all pipelines and utilities which may impact the project has been made. All known pipelines and utilities have been approximately located and shown on the plans. The Contractor shall notify all utility and pipeline owners before beginning

the work. Additional unknown utilities and pipelines may be found. Adjustments of these utilities or pipelines shall be done by others at no expense to the Contractor. However, the Contractor shall cooperate and coordinate his work with the adjustment

The Contractor will anticipate this in making his bid. The Contractor will not be allowed claims for damages or delays for these adjustments should they be necessary. However, additional time will be considered for the contract period.

This action, however, shall in no way be interpreted as relieving the Contractor of his responsibilities under the terms of the contract as set out in the plans and specifications. The Contractor shall repair any damage to the facilities caused by his operations at the Contractor's expense and shall restore facilities to service in a timely manner.

BUILDER'S RISK INSURANCE

Builder's Risk Insurance and Professional Liability Insurance will not be required for this project

EXPERIENCE

All bidders must have done a like project within the last two years

EXCESS, WASTE MATERIAL AND DEBRIS

All excess material (except for the milling of surface and base), waste material and debris shall become the property of the Contractor and shall be properly disposed of off-site. No separate payment shall be made for same.

LABOR AND EQUIPMENT

All labor and equipment furnished by the contractor will be considered subsidiary to the various bid items and will not be paid for directly

FIELD OFFICE

For this project the Contractor will not have to provide a field office.

INCIDENTALS

All items of work required under this contract not specifically called for in the proposal as pay items shall be considered incidental to the various bid items and no separate payment shall be made for same

FLAGMEN

During certain phases of construction flagmen will be required to direct and control traffic. This work will not be paid for directly, but shall be considered incidental to Item 502, "Barricades, Signs and Traffic Handling".

SPECIAL REQUIREMENTS:

- 1) The attached schedule of wages per hour for this Contract follow:

General Decision Number: TX100046 03/12/2010 TX46

Superseded General Decision Number: TX20080046

State: Texas

Construction Types: Highway

Counties: Brazoria, Chambers, Fort Bend, Galveston, Hardin, Harris, Jefferson, Liberty, Montgomery, Orange and Waller Counties in Texas.

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects, and railroad construction; bascule, suspension & spandrel arch bridges; bridges designed for commercial navigation; bridges involving marine construction; other major bridges).

Modification Number Publication Date
0 03/12/2010

SUTX2005-005 11/09/2004

	Rates	Fringes
Asphalt Distributor Operator. .	\$ 10.94	0.00
Asphalt paving machine operator	\$ 12.01	0.00
Asphalt Raker... ..	\$ 11.13	0.00
Asphalt Shoveler.....	\$ 9.14	0.00
Broom or Sweeper Operator.....	\$ 11.19	0.00
Bulldozer operator	\$ 11.81	0.00
Carpenter, Rough.....	\$ 12.49	0.00
Concrete Finisher, Paving.....	\$ 11.38	0.00
Concrete Finisher, Structures..	\$ 10.80	0.00
Concrete Paving Curbing		
Machine Operator.....	\$ 10.00	0.00
Concrete Paving Finishing		
Machine Operator	\$ 13.07	0.00
Concrete Paving Joint Sealer		
Operator....	\$ 11.00	0.00
Concrete Paving Saw Operator...	\$ 12.75	0.00
Concrete Paving Spreader		
Operator.....	\$ 10.44	0.00
Concrete Rubber.	\$ 9.00	0.00
Crane, Clamshell, Backhoe, Derrick, Dragline, Shovel		
Operator.. ..	\$ 12.71	0.00
Crusher and Screed Plant		
Operator.....	\$ 11.29	0.00
Electrician.. ..	\$ 21.79	0.00
Flagger.....	\$ 9.42	0.00
Form Builder/Setter, Structures	\$ 10.50	0.00
Form Liner, Paving & Curb.....	\$ 11.75	0.00
Form Setter, Paving & Curb ..	\$ 10.51	0.00
Foundation Drill Operator,		

Crawler Mounted.....	\$ 15.00	0.00
Foundation Drill Operator, Truck Mounted.	\$ 12.73	0.00
Front End Loader Operator.. . . .	\$ 10.65	0.00
Laborer, common.....	\$ 9.15	0.00
Laborer, Utility.....	\$ 9.81	0.00
Manhole Builder	\$ 9.00	0.00
Mechanic.....	\$ 13.72	0.00
Milling Machine Operator, Fine Grade.....	\$ 13.17	0.00
Mixer operator.. . . .	\$ 10.33	0.00
Motor Grader Operator, Rough...	\$ 13.13	0.00
Motor Grader Operator.....	\$ 11.67	0.00
Oiler	\$ 12.12	0.00
Painter, Structures.. . . .	\$ 15.54	0.00
Pavement Marking Machine Operator.....	\$ 8.18	0.00
Piledriverman	\$ 12.22	0.00
Pipelayer.....	\$ 9.49	0.00
Reinforcing Steel Setter, Paving	\$ 15.14	0.00
Reinforcing Steel Setter, Structure... ..	\$ 13.87	0.00
Roller Operator, Pneumatic, Self-Propelled.....	\$ 9.91	0.00
Roller Operator, Steel Wheel, Flat Wheel/Tamping.. . . .	\$ 10.43	0.00
Roller Operator, Steel Wheel, Plant Mix Pavement.....	\$ 11.07	0.00
Scraper Operator	\$ 9.92	0.00
Servicer....	\$ 10.96	0.00
Sign Installer (PGM).....	\$ 8.54	0.00
Slip Form Machine Operator. . . .	\$ 11.07	0.00
Spreader Box operator.....	\$ 11.12	0.00
Structural Steel Worker.....	\$ 12.13	0.00
Tractor operator, Crawler Type.	\$ 13.00	0.00
Tractor operator, Pneumatic. . . .	\$ 10.07	0.00
Traveling Mixer Operator.....	\$ 11.00	0.00
Truck driver, lowboy-Float. . . .	\$ 13.16	0.00
Truck driver, Single Axle, Heavy.....	\$ 10.65	0.00
Truck driver, Single Axle, Light.....	\$ 10.07	0.00
Truck Driver, Tandem Axle, Semi-Trailer.....	\$ 10.25	0.00
Work Zone Barricade Servicer...	\$ 9.94	0.00

WELDERS - Receive rate prescribed for craft performing
operation to which welding is incidental.

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Unlisted classifications needed for work not included within
the scope of the classifications listed may be added after
award only as provided in the labor standards contract clauses
(29CFR 5.5 (a) (1) (ii)).

In the listing above, the "SU" designation means that rates listed under the identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND CLAIMS

OWNER
ARCHITECT
CONTRACTOR
SURETY
OTHER

☐
☐
☐
☐
☐

AIA Document G706

TO (Owner)

☐

ARCHITECT'S PROJECT NO.

☐

CONTRACT FOR:

☐

☐

CONTRACT DATE:

PROJECT:

(name, address)

State of:

County of:

The undersigned, pursuant to Article 9 of the General Conditions of the Contract for Construction, AIA Document A201, hereby certifies that, except as listed below, he has paid in full or has otherwise satisfied all obligations for all materials and equipment furnished, for all work, labor, and services performed, and for all known indebtedness and claims against the Contractor for damages arising in any manner in connection with the performance of the Contract referenced above for which the Owner or his property might in any way be held responsible.

EXCEPTIONS: (If none, write "None". If required by the Owner, the Contractor shall furnish bond satisfactory to the Owner for each exception)

SUPPORTING DOCUMENTS ATTACHED HERETO:

CONTRACTOR.

1. Consent of Surety to Final Payment. Whenever Surety is involved, Consent of Surety is required. AIA DOCUMENT G707, CONSENT OF SURETY, may be used for this purpose. Indicate attachment: (yes) (no).

Address:

The following supporting documents should be attached hereto if required by the Owner:

BY:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.
3. Contractor's Affidavit of Release of Liens (AIA DOCUMENT G706A).

Subscribed and sworn to before me this
day of

19

Notary Public:

My Commission Expires:

47

CONTRACTOR'S AFFIDAVIT OF RELEASE OF LIENS

AIA DOCUMENT G706A

OWNER
ARCHITECT
CONTRACTOR
SURETY
OTHER

☐
☐
☐
☐
☐

TO (Owner)

☐

ARCHITECT'S PROJECT NO:

☐

CONTRACT FOR:

☐

☐

CONTRACT DATE:

PROJECT:

(name, address)

State of:

County of:

The undersigned, pursuant to Article 9 of the General Conditions of the Contract for Construction, AIA Document A201, hereby certifies that to the best of his knowledge, information and belief, except as listed below, the Releases or Waivers of Lien attached hereto include the Contractor, all Subcontractors, all suppliers of materials and equipment, and all performers of Work, labor or services who have or may have liens against any property of the Owner arising in any manner out of the performance of the Contract referenced above.

EXCEPTIONS: (If none, write "None". If required by the Owner, the Contractor shall furnish bond satisfactory to the Owner for each exception.)

SUPPORTING DOCUMENTS ATTACHED HERETO:

1. Contractor's Release or Waiver of Liens, conditional upon receipt of final payment.
2. Separate Releases or Waivers of Liens from Subcontractors and material and equipment suppliers, to the extent required by the Owner, accompanied by a list thereof.

CONTRACTOR:

Address:

BY:

Subscribed and sworn to before me this
day of

19

Notary Public:

My Commission Expires:

**CONSENT OF SURETY
TO REDUCTION IN OR
PARTIAL RELEASE OF RETAINAGE**

AIA DOCUMENT G707 A

OWNER ☐
ARCHITECT ☐
CONTRACTOR ☐
SURETY ☐
OTHER ☐

PROJECT:
(name, address)

TO (Owner)

ARCHITECT'S PROJECT NO.

CONTRACT FOR:

CONTRACT DATE:

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the
(here insert name and address of Surety as it appears in the bond)

, SURETY,

on bond of (here insert name and address of Contractor as it appears in the bond)

, CONTRACTOR,

hereby approves the reduction in or partial release of retainage to the Contractor as follows:

The Surety agrees that such reduction in or partial release of retainage to the Contractor shall not relieve the Surety
of any of its obligations to (here insert name and address of Owner)

, OWNER,

as set forth in the said Surety's bond.

IN WITNESS WHEREOF,
the Surety has hereunto set its hand this

day of 19

Surety

Signature of Authorized Representative

Attest:
(Seal):

Title

**CONSENT OF
SURETY COMPANY
TO FINAL PAYMENT**

AIA DOCUMENT G707

OWNER
ARCHITECT
CONTRACTOR
SURETY
OTHER

☐
☐
☐
☐
☐

PROJECT:
(name, address)

TO (Owner)

☐

☐ ARCHITECT'S PROJECT NO:
CONTRACT FOR:

☐

☐ CONTRACT DATE:

CONTRACTOR.

In accordance with the provisions of the Contract between the Owner and the Contractor as indicated above, the
(here insert name and address of Surety Company)

, SURETY COMPANY,

on bond of (here insert name and address of Contractor)

, CONTRACTOR,

hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not
relieve the Surety Company of any of its obligations to (here insert name and address of Owner)

, OWNER,

as set forth in the said Surety Company's bond.

IN WITNESS WHEREOF,
the Surety Company has hereunto set its hand this

day of

19

Surety Company

Signature of Authorized Representative

Attest:
(Seal):

Title

NOTE. This form is to be used as a companion document to AIA DOCUMENT G706, CONTRACTOR'S AFFIDAVIT OF PAYMENT OF DEBTS AND
CLAIMS, Current Edition

SECTION IV

General Terms and Conditions

GENERAL TERMS AND CONDITIONS

1. COUNTY AS OWNER

The word "County" in this contract refers to the County of Galveston.

2. CONTRACTOR

The word "Contractor" refers to the person or entity agreeing to perform the work in this contract

3. PROGRAM ADMINISTRATOR

The term "Program Administrator" refers to the person designated by County to act on its behalf in administering this contract

4. STATUS OF CONTRACTOR

The Contractor shall at all times be considered to be an independent contractor, and will not hold itself or its employees out to be employees or agents of the County of Galveston.

The Contractor shall provide, at the Contractor's expense, competent, full-time supervision of the work while actually in progress

5. ASSIGNMENT AND SUBLETTING

The Contractor will retain full control over this contract and will not assign or subcontract said contract without the prior written consent of the County. The Contractor further agrees that the subcontracting any portion or feature of the work shall not relieve the Contractor from its full obligations under this contract.

6. EQUAL OPPORTUNITY

The Contractor and all Subcontractors shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, or national origin.

The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the policies of non-discrimination.

7 CONTRACT

This contract consists of the following documents, Invitation to Bid, Instructions to Bidders, Bid Proposal, Contract Award, Special Terms and Conditions (including specifications, drawings and addenda), General Terms and Conditions, and any other documents referenced herein or attached hereto for the work. Collectively these documents may also be referred to as the Plans and Specifications

8 DISCREPANCIES AND OMISSIONS

In the event of any discrepancy between the Plans and Specifications, or otherwise, or in the event of any doubt as to the meaning and intent of any portion of the Plans and Specifications, the Program Administrator shall define which is intended to apply to the work. Such definition shall be final and binding on Contractor.

9. COLLATERAL CONTRACT

The County reserves the rights to provide by separate contract or otherwise, in such manner as not to delay its programs or damage said Contractor, all labor and material essential to the completion of the work that is not included in this contract

10 TIME

The Contractor is advised that time for completion will consist of the number of calendar days set out in the Contract Award.

The time for completion will begin to run on the day after the issuance of a notice to proceed by the Program Administrator. The Contractor is required to start work no later than ten (10) working days after the issuance of the written notice to proceed. Failure to timely commence operations may be deemed by the County to be a default. The Contractor will complete the work at that site within the time period specified. If there is more than one site listed on the notice to proceed, work for all sites must be completed not later than is specified for each site by the Program Administrator.

11 TIME AND ORDER OF COMPLETION

The Contractor will commence work within ten (10) working days after the issuance of the notice to proceed and will substantially complete it within the time specified in the Contract Award.

By the term "substantially completed" is meant that work shall be fully completed with the exception of minor miscellaneous work and adjustment.

12. EXTENSION OF TIME

Should the Contractor be delayed in the completion of the work by an act or neglect of the County or Program Administrator, or by any employee of either, or by other Contractors employed by the County, or by changes ordered in the work, or by strikes, lockouts, fire, or unusual delays by common carriers, or unavoidable cause or causes beyond the Contractor's control or by any cause which the Program Administrator shall decide justifies the delay, then an extension of time shall be allowed for completing the work sufficient to compensate for the delay. The Contractor shall give the Program Administrator prompt notice in writing of the cause of such delay. The amount of the extension will be determined by the Program Administrator.

13. LOSSES FROM NATURAL CAUSES

All damage to the work from the action of the elements, or from any unforeseen circumstances in the prosecution of the work shall be repaired by the Contractor at his own cost.

14. KEEPING OF PLANS AND SPECIFICATIONS ACCESSIBLE

The Contractor shall keep one (1) copy of all Plans and Specifications constantly accessible at the work site and available for inspection at all times.

15. PERFORMANCE OF WORK

All work shall be performed and completed in a thorough, workmanlike manner and in accordance with the latest proven practices of the trade by thoroughly skilled and experienced workers.

16. STORAGE AND CLEANUP

The County does not assume responsibility for any materials, tools, or equipment stored on or about the worksite. The worksite shall be cleared of debris by the Contractor continuously through the progress of the work and also upon final completion of the work.

17. WORKING HOURS

Contractor may perform work twenty four hours a day, seven days a week, unless otherwise restricted by the Special Conditions of this contract.

18. WORKSITE SECURITY

Contractor shall maintain the security of the worksite and shall restrict

access to the site to the following

- a) its employees,
- b) employees of subcontractors;
- c) representatives of manufacturers whose goods are utilized in the work and are called to the site by either the Contractor or the Program Administrator, and
- d) agents and/or employees of the County

Contractor shall provide adequate protection to persons on the worksite, adjacent properties, and utilities as is necessary to keep each free of damage or injury. Contractor shall furnish all barricades, warning lights and other safety devices necessary for the safety and protection of the public and shall remove them upon completion of the work performed on those premises under the terms of this contract.

Contractor will have complete control over the work site and shall be fully responsible for any loss of or damage to any County property from any cause and will reimburse County in the event of any loss or damage to County's property from any cause.

Contractor shall take proper means to protect adjacent or adjoining properties which might be injured or seriously effected by construction undertaken under this Agreement from any damage or injury by reason of said process of construction. Contractor shall be liable for any and all claims for such damage on account of its failure to fully protect all adjoining properties.

19. ALCOHOL/DRUG FREE WORKPLACE

The County is committed to maintaining an alcohol and drug free workplace. Possession, use or being under the influence of alcohol or controlled substances by the Contractor's employees while in the performance of this Contract is prohibited. Violation of this requirement shall constitute grounds for immediate termination of the contract.

20 LABOR

Contractor is encouraged to use local labor, but not at the expense of poor workmanship and higher cost.

Contractor will not discriminate against any employee or applicant for employment because of race, religion, creed, color or national origin. Contractor agrees to post in a conspicuous place a notice setting forth provisions of this non-discrimination clause.

In the event of Contractor's non-compliance with the non-discrimination

clause of this contract, the contract entered into may be canceled in whole or in part.

21. WAGE RATES

This Contract is a Public Works Contract governed by V.T.C.A., Government Code, Chapter 2258. That Act requires Contractor to pay workers not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the work is performed and not less than the general prevailing rate of per diem wages for legal holiday and overtime work.

Prevailing wage rates determined by the United States Department of Labor in accordance with the Davis-Bacon Act (40 U.S.C. Section 276a et seq) are used in this contract and are incorporated and made a part hereof.

In the event other crafts or types of workers are required than are listed therein, such workers shall be paid at a rate not less than the prevailing rate for similar workers in the Galveston County area

Contractor acknowledges that:

A) Pursuant to V.T.C.A., Government Code §2258.022, a violation of the obligation to pay workers the prevailing wages shall result in Contractor paying the County the amount of \$60.00 for each worker employed for each calendar day or part of the day that the worker is paid less than the wage rates stipulated in the Contract; and

B) Contractors and Subcontractors shall be required to keep a record showing the name and occupation of each worker employed by Contractor or Subcontractor in the construction of the work called for in the contract and the actual per diem wages paid to each worker. The record shall be open at all reasonable hours to inspection by the officers and agents of the County.

Contractor represents it has read this law and the penalties provided prior to entering into this agreement.

22. UTILITIES

Contractor shall be responsible for any charges which may be made by any city or utility companies for the work to be performed by Contractor

23. PARKING

Contractor shall be responsible for the expense of parking the Contractor's vehicle(s) in a legal manner and at no expense or inconvenience to the County.

24. FIRE AND SAFETY

Contractor is completely responsible for fire protection at the job site as well as the safety of its own employees as well as those entering onto the job site

25. CONTRACTOR'S BUILDINGS

The building of structures for housing men, or the erection of tents or other forms of protection will be permitted only at such places as the Program Administrator shall permit, and the sanitary conditions of the grounds in or about such structures shall at all times be maintained in the manner satisfactory to the Program Administrator

26. INSURANCE

Contractor shall obtain and pay for insurance set forth below prior to commencing work, and shall file with the Program Administrator certificates or copies of policies for approval and as proof of coverage:

- 1) Workmen's Compensation
 - a. State Statutory
 - b. Applicable - Statutory
- 2) Comprehensive General Liability (including Premises – Operations, Independent Contractor's Protective, Products and Completed Operations, Broad Form Property Damage)
 - a. Bodily Injury –
 - \$100,000.00 each person, each occurrence
 - \$300,000.00 Aggregate, each occurrence
 - b. Property Damage including loss of use –
 - \$100,000.00 Each occurrence
 - c. Products and Completed Operations to be maintained for 1 year after Final Payment
 - d. Property Damage Liability Insurance will provide X, C or U coverage as applicable
- 3) Contractual Liability
 - a. Bodily Injury
 - \$100,000.00 Each Person
 - \$300,000.00 Each occurrence
 - b. Property Damage
 - \$100,000.00 Each occurrence
- 4) Personal injury, with Employment Exclusion deleted:
 - \$100,000 00 Each occurrence

- 5) Comprehensive Automobile Liability (including owned, non-owned and hired motor vehicles).
 - a Bodily Injury
 - \$100,000.00 Each Person
 - \$300,000.00 Each occurrence
 - b. Property Damage
 - \$100,000.00 Each occurrence

6) Builders Risk Insurance

The contractor shall furnish one copy of each Certificate of Insurance herein required with each signed copy of the Agreement and prior to commencement of the work. The contractor shall furnish to the Owner copies of any endorsements that are subsequently issued amending coverage or limits. Receipt of all required notices shall be evidenced by return receipt of registered or Certified letter. The policies shall contain provision that coverages will not be cancelled until at least thirty days' prior written notice has been given to the County. In the event of such notice of cancellation being given the contractor will provide substitute policies with the same provisions to county prior to the effective date of such cancellation.

The above requirements do not establish limits of Contractor's liability.

Contractor shall at all times during the term of this contract and any extensions thereof maintain such insurance coverage.

Such insurance is to be provided at the sole cost of Contractor.

All policies of insurance shall waive all rights of subrogation against County, its officers, employees and agents.

The County shall be named as "additional insured" on such policies as are specified above.

The County reserves the right to require additional insurance should it be deemed necessary.

27. SANITATION

Necessary sanitary conveniences for the use of laborers at the worksite, properly secluded from the public observation, shall be constructed and maintained by Contractor in such manner at such points as shall be approved by the Program Administrator, and their use shall be strictly enforced.

28 DAILY CLEANUP

Contractor shall confine to the work site all materials and refuse generated by Contractor's operations. Materials which are stored on-site shall be stored in an orderly manner. Materials or refuse from demolition and/or removal operations which become scattered in adjacent areas shall be collected and returned to the work site and satisfactorily removed. Truck hauling materials must be covered to keep materials from littering streets.

29 FINAL GRADING

If grading is required, when work is complete, Contractor shall grade the site to fill in holes and make a presentable appearance without disturbing trees and add fill dirt if needed. Contractor may not leave voids in the grading and compaction of the property. The land shall have a smooth appearance without concrete, bricks, building materials, and other debris on the surface.

30 RIGHT OF ENTRY

County reserves the right to enter the property or location at which the work is being conducted, by such agents as it may elect, for the purpose of inspecting the work, or for the purpose of constructing or installing such collateral work as County may desire, or for any other purpose deemed necessary by County.

31. INSPECTION

County reserves the right to inspect the work done by Contractor at any time.

The inspection may include examination of the material furnished and the work done under this agreement to ensure compliance with the plans and specifications.

Contractor shall furnish all reasonable aid and assistance required by the inspector(s) for the proper inspection and examination of the work. The inspector(s) may make any order requiring remedy of deficient performance at any time. Should Contractor object to any order by any inspector, Contractor may, within 24 hours, make written appeal to the Program Administrator for his decision, which decision shall be final and binding on Contractor.

The approval or failure of an inspector to reject non-complying work or materials shall not relieve Contractor of his obligation to perform the work in full compliance with the plans and specifications for the work.

Contractor shall be responsible for the costs associated with the exposing and covering of any item of concealed work for which an inspection is performed.

32. DEFECTS AND THEIR REMEDIES

It is further agreed that if the work or any part thereof, or any material brought on the ground for use in the work or selected for the same, shall be deemed by the Program Administrator as unsuitable or not in conformity with the specifications Contractor shall, after receipt of written notice thereof from the Program Administrator, forthwith remove such material and rebuild or otherwise remedy such work so that it shall be in full accordance with this contract

33 SUBSTANTIAL COMPLETION

When the Contractor determines that the work is substantially complete, he shall advise the Program Administrator of such and schedule a time for the Program Administrator to inspect the work Contractor shall have all systems fully functional and operational for the inspection of the Program Administrator All phases of the work will be examined by the Program Administrator, who will note any deficiencies in the work and notify Contractor of the same.

The Program Administrator may acknowledge that the project is substantially complete if the work has been completed to the point where the work can be utilized for the general purpose for which it was undertaken; however, if the project is found not to be substantially complete, the Program Administrator will so advise the contractor.

34. FINAL COMPLETION AND ACCEPTANCE

Within ten (10) days after Contractor has given the Program Administrator written notice that the work has been completed, or substantially completed, the Program Administrator shall inspect the work and, within said time, if the work be found to be completed or substantially completed in accordance with the plans and specifications, the Program Administrator shall issue a substantial completion certificate.

Should such inspection reveal deficiencies on the work, the Program Administrator will deliver a list of deficiencies to Contractor for immediate repair No final payment will be made until all deficiencies have been remedied.

35. PARAGRAPH 35 HAS BEEN DELETED

36. PROGRESS PAYMENTS AND RETAINAGE

If this contract provides for the making of progress payments, Contractor shall make application to County for payment utilizing forms provided by County for that purpose Contractor shall state the percentage or the limits of the work performed and

request payment for the amount of acceptable work performed Applications for payment shall be made monthly by Contractor.

The County shall then pay the Contractor on or before 45 days thereafter, the total amount of the request, less 5% of the amount thereof, which 5% shall be retained until final payments, and further less all previous payments, and further less all further sums that may be retained by the County under the terms of this agreement.

Upon the attainment of substantial completion, payment will be made so that the sum of all payments made under the contract equals Ninety Five Percent (95%) of the total contract amount

37. ESTIMATED QUANTITIES

This Contract, including the specifications, plans and estimates, is intended to show clearly all the work to be done and material to be furnished hereunder. The estimated quantities of the various classes of work to be done and material to be furnished under this contract are approximate and are to be used as a basis for estimating the probable cost of the work and for comparing the proposals offered for the work It is understood and agreed that the actual amount of work to be done and material to be furnished under this contract may differ somewhat from these estimates, and that the basis for payment under this contract shall be the plan quantity or actual amount of such work done whichever is specified It is further understood that the County does not guarantee any minimum amount of work under this Contract

Contractor agrees that it will make no claim for damages, anticipated profits or otherwise on account of any differences which may be found between the quantities of work actually done, the material actually furnished under this Contract and the estimated quantities contemplated and contained in the proposals.

38. CHANGES AND ALTERATIONS

Contractor further agrees that Program Administrator may make such changes and alterations as County may see fit, in the line, grade, form dimensions, plans or materials for the work herein contemplated, or any part thereof, either before or after the beginning of the contract construction, without affecting the validity of this Contract and the accompanying bonds

If such changes or alterations diminish the quantity of the work to be done, they shall not constitute the basis for a claim for damages, or anticipated profits on the work that may be dispensed with. If they increase the amount of the work, and the increased work can fairly be classified under the specifications, such increase shall be paid for according to the quantity actually done and at the unit price established for such work under this contract; otherwise such additional work shall be paid for as provided under the paragraph entitled "EXTRA WORK". In case Program Administrator shall

make such changes or alterations as shall make useless any work already done or material already furnished or used in said work, then County shall recompense Contractor for any material or labor so used, and for any actual loss occasioned by such change due to actual expenses incurred in preparation for the work as originally planned.

39. EXTRA WORK

The term "Extra Work" as used in this contract shall be understood to mean and include all work that may be required by the Program Administrator to be done by Contractor to accomplish any change, alteration or addition to the work shown in the plans and specifications.

It is agreed that Contractor shall perform all Extra Work under the direction of the Program Administrator when presented with a Written Work Order signed by the Program Administrator: subject, however, to the right of Contractor to require a written confirmation of such Extra Work Order by the County Commissioners' Court. It is also agreed that the compensation to be paid Contractor for performing said Extra Work shall be determined by one or more of the following methods:

Method (a) - By agreed unit prices; or

Method (b) - By agreed lump sum: or

Method (c) - If Neither Method (a) nor Method (b) can be agreed upon before the Extra Work is commenced, then Contractor shall be paid the "Actual field cost" of the work plus fifteen (15) percent

In the event said Extra Work be performed and paid for under Method (c), then the provisions of this paragraph shall apply and the "actual field cost" is hereby defined to include the cost of all workmen, such as foremen, timekeepers, merchants, and laborers, and materials, supplies, teams, trucks, rentals on machinery and equipment for time actually employed or used on such Extra Work plus actual transportation charges necessarily incurred, if the kind of equipment or machinery is not already on the job, together with all power, fuel, lubricants, water and similar operating expenses, also all necessary incidental expenses incurred directly on account of such Extra Work including Social Security, Old Age Benefits and other payroll taxes, and a ratable proportion of premiums on Construction and Maintenance Bonds, Public Liability and Property Damage and Workmen's Compensation, and all other insurance as may be required by any law or ordinance, or directed by the Program Administrator or by him agreed. The Program Administrator may direct the form in which accounts of the "actual field cost" shall be kept and may also specify in writing, before the work commences, the method of doing the work and the type and kind of machinery and equipment to be used, otherwise these matters shall be determined by Contractor. Unless otherwise agreed upon, the prices for the use of machinery and equipment shall be determined by using the one hundred (100) percent of the actual hourly or daily rate (for the time used plus time in moving to and from Job) of the latest schedule of Equipment Ownership Expense adopted by the Association General Contractors of America. Where practicable the terms and prices for

the use of Machinery and Equipment shall be incorporated in the Written Extra Work Order. The fifteen (15) percent of the "Actual Field Cost" to be paid Contractor shall cover and compensate him for his profit, overhead, general superintendence and field office expense, and all other elements of cost and expense not embraced within the 'actual field cost' as herein defined, save that where the Contractor's Camp or Field Office must be maintained primarily on account of such extra work, then the cost to maintain and operate same shall be included in the "actual field cost"

No claim for extra work of any kind will be allowed unless ordered in writing by the Program Administrator. In case any orders or instructions, either oral or written appear to Contractor to involve extra work for which he should receive compensation, it shall make written request to the Program Administrator for written order authorizing Extra Work. Should a difference of opinion arise as to what does or does not constitute extra work, or as to the payment therefor, and the Program Administrator insists upon its performance, Contractor shall proceed with the work after making written order and shall keep an accurate account of the "actual field cost" thereof, as provided under Method (c) and by this action Contractor will thereby preserve the right to submit the matter of payment to litigation

40. FINAL PAYMENT

Upon the issuance of the approval for payment, the Program Administrator shall certify same to County, who shall pay to Contractor the balance due Contractor under the terms of this agreement, provided it has fully performed its contractual obligations under the terms of this contract, and has provided County with a release of liens from all materialmen, suppliers and subcontractors utilized in the work.

41. HINDRANCES AND DELAYS

No charge shall be made by Contractor for hindrances or delays from any cause (except when work is stopped by order of the County) during the progress of any portion of the work embraced in this contract. In case said work shall be stopped by the act of Program Administrator then such expense as in the judgment of the Program Administrator is caused by stopping of said work shall be paid by County to Contractor

42. TIME OF FILING CLAIMS

It is further agreed by both parties hereto that all questions of dispute or adjustment presented by Contractor shall be in writing and filed with the Program Administrator within a reasonable time after the Program Administrator has given any directions, order, or instruction to which Contractor desires to take exception. The Program Administrator shall reply to such written exceptions by Contractor and render his final decision in writing

43 LIQUIDATED DAMAGES FOR DELAY

Contractor agrees that time is of the essence of this contract and that for each day of a delay of a day beyond the number of working days or calendar days herein agreed upon the completion of the work herein specified and contracted for (after due allowance for such extension of time as is provided for under Extension of Time hereinabove) County may withhold permanently from Contractor's total compensation the sum specified in the special conditions as liquidated damages for such delay.

44. ABANDONMENT BY CONTRACTOR

Should Contractor fail to start or resume work within ten (10) days after written notification from the Program Administrator or if Contractor fails to comply with a change order or instruction of the Program Administrator, Contractor shall be declared to be in default and the Surety on the bonds shall be notified in writing and directed to complete the work, and a copy of said notice shall be delivered to Contractor.

In case the Surety should fail to commence compliance with the notice for completion hereinbefore provided for within ten (10) days after services of such notice, or in the event there is no Surety, then County may provide for completion of the work in any manner it deems appropriate.

45 TERMINATION

County may terminate this Contract

- I immediately by giving written notice, if Contractor breaches its obligation under the Contract; or
- II. with or without cause, after giving 30 days written notice of termination to Contractor.

In the event this Contract is terminated Contractor will be paid for work satisfactorily completed. The amount of such payment will be determined by the Program Administrator.

46. SALVAGE

Any materials, equipment and fixtures specifically ordered to be salvaged under these specifications shall remain the property of County and will be delivered to the site designated by the Program Administrator. All other items shall be disposed of by Contractor in compliance with all applicable laws and regulations

47 COMPLIANCE WITH CODES

Contractor shall comply with all city, county, and state codes, laws, and

ordinances in force at the time of award of contract and applicable to such work. Contractor shall obtain, at Contractor's own expense such permits, certificates, and licenses as may be required in the performance of the specified work.

48 INDEMNITY

Contractor shall defend, indemnify, and save whole and harmless Galveston County, and its officers, agents, and employees from and against all claims and suits of whatever character, arising from the performance of this contract

49. PROTECTION AGAINST CLAIMS OF SUBCONTRACTORS, LABORERS, MATERIALMEN AND FURNISHERS OF MACHINERY EQUIPMENT AND SUPPLIES

Contractor agrees to indemnify and hold County harmless from all claims of subcontractors, laborers, workmen, mechanics, materialmen and furnishers of equipment, and all supplies incurred in the performance of this contract. Contractor shall furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged or waived. If Contractor fails to do so, then County reserves the right to pay unpaid bills of which County has written notice direct and withhold from Contractor's unpaid compensation a sum of money reasonably sufficient to liquidate any and all such lawful claims.

50. PROTECTION AGAINST ROYALTIES, PATENTED INVENTIONS OR PROCESS, OR PATENT INFRINGEMENT

Contractor shall, at its own expense, settle or defend any claim, suit or action brought against County and shall protect and save harmless County from all and every demand for damages, royalties or fees for any patented invention or process used by it in connection with the work done, process used or material furnished under this Contract, and shall pay any final judgement for damages, attorneys fees and costs which may be awarded against County.

51. LAWS AND ORDINANCES

Contractor shall at all times observe and comply with all Federal, State and Local Laws, ordinances and regulations which in any manner effect the contract or the work, and shall indemnify and save harmless the County against any claim arising from the violation of any such laws and ordinances, whether by Contractor or its employees.

52. WARRANTY

Contractor and/or its Surety will be required by County to repair, replace, restore, and/or to make such corrections as are required of it to comply strictly in all things with this contract and the Plans and Specifications and any and all of said work and/or

materials, which, within a period of one year from and after the date of the passing, approval, and/or acceptance of any such work or materials, are found to be defective or to fail in any way to comply with this contract or with the Plans and Specifications.

53. PERMITS AND LICENSES

Contractor shall be responsible for obtaining and furnishing all necessary permits and licenses, City, County, State or Federal as are required for the performance of this contract.

54. NOTICE

Any notice required or permitted between the parties under this contract must be in writing and shall be delivered in person or mailed, certified mail, return receipt requested, or may be transmitted by fax as follows to County at:

Hon. James Yarbrough, County Judge
Galveston County Courthouse, 2nd floor
Galveston, TX 77550
Fax (409) 765-2653

and to Contractor at the address listed in Contractor's Bid Proposal.

55. FORCE MAJEURE

If the performance by County of any of its obligations under this contract is delayed by any occurrence not of its own conduct, whether an act of God or the common enemy or the result of war, riot, civil commotion, sovereign conduct, or the act or conduct of any person not a party or privy to this contract, the County is excused from its performance for a period of time as is reasonably necessary after the occurrence to remedy the effects of the occurrence.

56. APPLICABLE LAWS

Contractor acknowledges that County is a governmental entity and this Agreement is an open record under the Open Records Act and will be discussed and voted upon in a public meeting.

57. ENTIRETY OF AGREEMENT AND MODIFICATION

This contract contains the entire agreement between the parties. A prior agreement, promise, negotiation or representation not expressly set forth in this contract has no force or effect. A subsequent modification to this contract must be in writing, signed by both parties.

An official representative, employee, or agent of the County does not have authority to modify or amend this contract except pursuant to specific authority to do so granted by the Commissioners' Court.

58. SEVERABILITY; CONFORMITY WITH LEGAL LIMITATIONS

If a provision contained in this contract is held invalid for any reason, the invalidity does not affect other provisions of the contract that can be given effect without the invalid provision, and to this end the provisions of this contract are severable.

59. GOVERNING LAW; VENUE

This contract shall be governed by the laws of the State of Texas. Venue for an action arising under this contract shall be exclusively in Galveston County.

60. LINES AND GRADES

The Engineer will furnish points for horizontal and vertical control. Any additional stakes required by the Contractor shall be set at his expense. Whenever necessary, work shall be suspended to permit this work, but such suspension will be as brief as practicable and the Contractor shall be allowed no extra compensation therefor. The Contractor shall give the Engineer ample notice of the time and place where control lines and bench marks will be needed. All control stakes, marks, etc. shall be carefully preserved by the Contractor, and in case of careless destruction or removal by him or his employees, such control stakes, marks, etc. shall be replaced by the Engineer at the Contractor's expense.

GOVERNING SPECIFICATIONS AND SPECIAL PROVISIONS

All Specifications and Special Provisions applicable to this Project are identified as follows:

GENERAL NOTES AND SPECIFICATIONS DATA

STANDARD SPECIFICATIONS:

City of Friendswood Technical Specifications

SPECIAL SPECIFICATIONS:

SPECIAL PROVISIONS:

GENERAL: The above listed specification items are those under which payment is to be made. These, together with such other pertinent items, if any, as may be referred to in the above listed specification items, and including the special provisions listed above, constitute the complete specification for this project. No separate payment will be made for any item that is not specifically set forth on the bid sheets and all costs therefore shall be included in the prices named in the bid sheets for the various appurtenant items of work.

**SECTION V
SPECIFICATIONS**

SECTION 00005B

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END OF SECTION

SECTION 01110

SUMMARY OF WORK

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Summary of the Work including work by the City, City-furnished Products, work sequence, future work, Contractor use of Premises, special conditions for substantial completion and City occupancy

1.2 REFERENCES

- A. CFTS – City of Friendswood Technical Specifications.

1. Document 00300 – Unit Price Form.

2. Document 00400 – Standard Agreement for Contracting Services.

3. Section 00500 – General Conditions.

4. Section 01140 – Work Restrictions.

5. Section 01315 – Coordination and Meetings

6. Section 01745 – Site Restoration

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- A. Work of the Contract is for construction of {INSERT PROJECT NAME}

1.4 CASH ALLOWANCES

- A Include the following specific Cash Allowances in Contract Price under provision of General Conditions.

1 List short description of each Cash Allowance, as listed in Document 00300 – Unit Price Form, Paragraph 3.4 and a more detailed description of each, as appropriate. Do not include dollar amounts.]

1.5 ALTERNATES

- A. From the following list of Alternates, amount included in Contract Price

01110-1

for only those Alternates accepted by the City and listed in the fully executed Document 00400 – Standard Agreement for Contracting Services, Article 5

- 1 [List short description of each Alternate, as listed in Document 00300 – Unit Price Form, and a more detailed description of each, as appropriate]

1.6 CITY-FURNISHED PRODUCTS

- A. Items Furnished by the City for Installation and final connection by Contractor. Water meter
- B. Contractor's Responsibilities:
 - 1 Arrange and pay for product delivery to the site
 - 2 Receive and unload products at the site, jointly with the City, inspect for completeness or damage
 - 3 Handle, store, install, and finish products
 - 4 Repair or replace damaged items

1.7 WORK SEQUENCE

- A Construct the Work in phases during the construction period, coordinate construction schedule and operations with the City:
 - 1 Phase 1 []
 - 2 Phase 2 []
 - 3 Phase 3 []
- B For projects with no phases, do not disturb more than 50% of total project linear feet of disturbed right-of-way and easement until site restored in accordance with Section 01745 – Site Restoration
- C Coordination of the Work: Refer to Section 01315 – Coordination and Meetings.

1.8 CONTRACTOR USE OF PREMISES

- A. Comply with procedures for access to the site and Contractor's use of rights-of-way as specified in 01140 – Work Restrictions

- B. Construction Operations Limited to the City's rights-of-way provided by the City and areas shown or described in the Contract Documents
- C. Utility Outages and Shutdown Provide a minimum of forty-eight hours (48 Hrs) notice to the City and private utility companies (when applicable), excluding weekends and holidays, in advance of required utility shutdown. Coordinate all work as required.

1.9 STREET CUT ORDINANCE

- A. Excavations on or under pavement in the City's right-of-way must have a permit. Comply with City of Friendswood, Texas Ordinance No 2000-1115, an ordinance amending Chapter 40 of the Code of Ordinances, Friendswood, Texas, relating to excavating in the public right-of-way.
- B. Comply with the latest edition of New Pavement Repair and Pavement Replacement details for street cuts.
- C. Quantities are included for street cut pavement repair and replacement in applicable Specification sections for Unit Price contracts.
- D. Include payment for street cut pavement repair and replacement in lump sum bid for Stipulated Price contracts.

1.10 WARRANTY

- A. Comply with warranty requirements in accordance with Section 00500 – General Conditions

1.11 ADDITIONAL CONDITIONS FOR SUBSTANTIAL COMPLETION

- A. In addition to requirements outlined in Section 00500 – General Conditions, for Contractor to be substantially complete with the Work and call for inspection by Project Manager to confirm, the following conditions must be met or completed:

Edit the following list to add Project-specific conditions that must be met for Substantial Condition to be granted by the City. These conditions shall be in addition to conditions already stipulated elsewhere in the Contract Documents and should not be a duplication. Do not repeat a requirement that is stated elsewhere in the Contract Documents, but include a reference that points to that requirement. The following are possible examples.

- 1 Demonstrate the ability to receive and monitor video and Supervisory Control and Data Acquisition (SCADA) data from all remote sites (ground water plants, pressure points, fire stations, etc)
 - 2 All testing shall be completed and accepted by Project Manager
 - 3 All SCADA and security equipment shall be installed, accepted by manufacturer's representative and approved for operation
 - 4 Draft O&M manuals shall be delivered to Project Manager
 - 5 Training shall be conducted, utilizing draft O&M manuals
 - 6 All safety related work, including pavement stripping, signing and signalization.
 - 7 All safety related systems and equipment shall be installed, accepted by manufacturer's representative and approved for use.
 - 8 All pay items complete report.
 - 9 Contractor shall contact Construction Project Manager, to complete Texas Department of Licensing and Regulation Post Construction Inspection of pedestrian elements for Texas Accessibility Standards.
 10. . . . Describe other conditions that must be met or completed by Date of Substantial Completion.
- B. No additional condition described in Paragraph 1.10 may be included in Contractor's punch list.

PART II: PRODUCTS – NOT USED.

PART III. EXECUTION – NOT USED.

END OF SECTION

SECTION 01140

WORK RESTRICTIONS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A General use of the site including properties inside and outside the rights-of-way, work affecting road, ramps, streets and driveways and notification to adjacent occupants.

1.2 RIGHTS-OF-WAY

- A. Confine access, operations and storage areas to rights-of-way provided by the City and as stipulated in Section 00500 – General Conditions; trespassing on abutting lands or other lands in area shall not be allowed.
- B. Make arrangements at no cost to the City for temporary use of private properties. The Contractor and the Surety shall indemnify and hold harmless the City against claims or demands rising from such use of properties outside of rights-of-way. Submit a copy of agreement between private property owner and the Contractor prior to use of area. Agreements between private property owners and the Contractor shall be notarized or bear the signatures of two (2) witnesses.
- C. No material shall be stored in esplanades or medians without prior written approval by the Project Manager.
- D. Restrict total length of distributed materials along the route of construction to one thousand linear feet (1000 Lf) unless otherwise approved by the Project Manager in writing.

1.3 PROPERTIES OUTSIDE THE RIGHTS-OF-WAY

- A Do not alter the condition of properties adjacent to and along rights-of-way.
- B Do not use ways, means, methods, techniques, sequences or procedures that result in damage to properties or improvements
- C. Restore damaged properties outside of rights-of-way at no cost to the City to as good as or better than the original condition prior to

construction

1.4 USE OF SITE

- A Obtain approvals from governing authorities prior to impending or closing public roads and streets. Do not close more than two (2) consecutive intersections at one (1) time.
- B Notify the Project Manager a minimum of five working days (5 wD) prior to closing a street or street crossing. Obtain any required permits for street closures in advance.
- C Maintain ten foot (10 Ft) wide minimum access for emergency vehicles including access to Fire Hydrants.
- D Avoid obstructing drainage ditches or inlets. When obstruction is unavoidable due to requirements of the Work, provide grading and temporary drainage structures to maintain unimpeded flow.
- E Locate, document and protect private and public lawn sprinkler systems that may exist within the site. Repair or replace all damaged systems to original or better conditions at the start of the Work.
- F Conform to daily clean-up requirements as specified in these Technical Specifications and Section 00500 – General Conditions.
- G Beware of overhead power lines existing in the area and in close proximity of the Work. When ten feet (10 Ft) of clearance between energized power line and construction-related activity cannot be maintained, request that the power company responsible for the power line de-energize or move the conflicting overhead power line. Schedule, coordinate and pay costs associated with de-energizing or moving the conflicting overhead power lines. When there is no separate pay item for this work, include these costs in various items of bid that make such work necessary.

1.5 NOTIFICATION OF ADJACENT OCCUPANTS

- A Notify individual occupants in the areas to be effected by the Work of construction and time schedule. Notify not less than seventy-two hours (72 Hrs) no more than two weeks (2 Wks) prior to work being performed within two hundred feet (200 Ft) of homes and/or businesses.
- B Include in notification nature of the Work, and names and telephone numbers of two (2) company representatives for resident contact that shall be available on twenty-four hour (24 Hr) call.

- C. Submit proposed notification to the Project Manager for approval at least of twenty-four hours (24 Hrs) in advance of schedule timed to notify adjacent occupants.

1.6 PUBLIC, TEMPORARY AND CONSTRUCTION ROADS AND RAMPS

- A. Construct and maintain temporary detours, ramps and roads to provide for normal public traffic flow when it is necessary to close public roads or streets.
- B. Provide mats or other means to prevent overloading or damage to existing roadways from tracked equipment, large tandem axle trucks and/or equipment that will damage existing roadway surfaces.
- C. Construct and maintain access roads and parking areas as specified in Section 01505 – Temporary Facilities and Controls.

1.7 EXCAVATION IN STREETS AND DRIVEWAYS

- A. Avoid hindering or inconveniencing public travel on streets and roadways for more than two hours (2 Hrs) at one (1) time, except with prior written approval by the Project Manager.
- B. Obtain the approval of the Director of Community Development and the Director of Public Works when the nature of the Work requires closure of an entire street. Permits required for street closure are the Contractor's responsibility. Avoid unnecessary inconvenience to adjacent property owners.
- C. Remove surplus materials and debris and open each block for public use as work in that block is complete.
- D. Acceptance of any portion of the Work shall not be based solely on the return of the street to public use.
- E. Do not obstruct the ingress/egress of driveways or entrances to private properties without prior written approval by the Project Manager.
- F. Provide temporary crossings or complete excavation and backfill in one (1) continuous operation to minimize the duration of obstruction when excavation is required to cross driveways and entrances.
- G. Provide barricades and signs in accordance with Section VI of the State of Texas Manual on Uniform Traffic Control Devices – latest addition.

1 8 TRAFFIC CONTROL

- A. Comply with traffic regulation as specified in Section 01555 – Traffic Control and Regulation.
- B. Install traffic control devices as shown in the Traffic Control Sheet of the Drawings.

1 9 SURFACE RESTORATION

- A. Restore the site to as good or better than the condition existing before construction or better.
- B. Repair paved areas per the specifications of Section – 02845 Pavement Repair and Resurfacing.
- C. Repair damaged turf level with bank sand conforming to Section 02125 – Excavation and Backfill for Utilities, or topsoil conforming to Section – 02905 Topsoil and re-sod in accordance with Section 02915 – Sodding. Water and level newly sodded areas with adjoining turf using appropriate steel wheel rollers for sodding. Do not use spot sodding, checkerboard sodding or sprigging unless otherwise specified or directed by the Project Manager.

1.10 LIMITS OF CONSTRUCTION

- A. Confine operations to lands within construction work limits shown on the Drawings. Unless otherwise noted on the Drawings adhere to the following:
 - 1. Where utility alignment is within esplanade or median, and construction limits are shown on the Drawings to extend to the edge of the esplanade or median, keep equipment, materials and stockpiles a minimum of five feet (5 Ft) from back of curb
 - 2. Where construction limits shown on the Drawings extend to the property line, keep sidewalks free of equipment, materials and stockpiles.

1 12 EQUIPMENT AND MATERIAL SALVAGE

- A. Upon completion of the Work, carefully remove salvageable equipment and material. Deliver them to the City of Friendswood as directed by the Project Manager. Dispose of all other equipment not designated to be salvaged offsite at no additional cost to the City.

1 13 WORKING TIME

- A Normal work hours shall be from seven (7) A.M. to eight (8) P.M. Monday through Friday, Central Standard Time. Daylight Savings Time shall not amend these working hours.
- B. Work hours for work that does not require inspection shall be from nine (9) A.M. to six (6) P.M. on Saturdays, Sundays and Holidays.
- C No work shall be done at any other time than those stated above without prior written approval by the Project Manager.
- D. No work that is need of inspection shall be undertaken beyond the time listed in paragraph 1.13.A in this Section.
- E. The Contractor can request that unusual circumstances require work, which must be inspected that must be accomplished out side of the normal hours listed in paragraph 1.13.A in this Section. In such circumstances the request shall be a minimum of forty-eight hours (48 Hrs) before the day requested and the following shall apply:
1. The Contractor shall request in writing approval to work beyond the normal work hours. In this request, the Contractor shall state the reason for each request. Permission is at the sole discretion of the Director of Community Development.
 2. The Contractor shall pay to the City for the Project Manager or other City Personnel in accordance with the City's Adopted Fee Schedule.
 3. The Contractor shall also pay for the Independent Testing Laboratory if needed.
- F Request to work on days other than normal working days does not constitute an approval to do so. Work on Saturday, Sunday and/or Holidays shall only be done after such request has been approved by the Director of Community Development.

1 14 REFERENCES

- A. CFTS – City of Friendswood Technical Specifications
- 1 Section 00500 – General Conditions
 2. Section 01505 – Temporary Facilities and Controls.

01140-5

- 3 Section 01555 – Traffic Control and Regulation.
- 4 Section 02125 – Excavation and Backfill for Utilities
- 5 Section 02845 – Pavement Repair and Resurfacing
- 6. Section 02905 – Topsoil.
- 7 Section 02915 – Sodding.



SECTION 01210

ALLOWANCES

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Schedule of monetary amounts of allowances in the Contract Sum for designated products or services.
- B Costs in Contract Sum other than in Allowances.
- C Administrative and procedural requirements governing the following.
 - 1. Lump-sum allowances.
 - 2. Unit-cost allowances.
 - 3. Quantity allowances.
 - 4. Contingency allowances.
 - 5. Testing and inspecting allowances.

1.2 SCHEDULE OF ALLOWANCES

- A To be determined.

1.3 COSTS INCLUDED IN ALLOWANCES

- A Cost of product to the Contractor or subcontractor, less applicable trade discounts.
- B Delivery to site.
- C Labor required under allowance, only when labor is specified to be included.

1.4 CONTRACTOR COSTS INCLUDED IN CONTRACT SUM

- A Products handling at site, including unloading, uncrating, and storage.
- B Protection of products from elements and from damage.

- C. Labor for installation and finishing, except when installation is specified as part of allowance
- D. Other expenses required to complete installation
- E. Contractor overhead and profit.

1.5 ADJUSTMENT OF COSTS

- A. Should the net cost be more or less than the specified amount of the allowance, the Contract Sum will be adjusted accordingly by Change Order
- B. Submit claims for anticipated additional costs at the site, or other expenses caused by the selection under the allowance, prior to execution of the Work
- C. Submit documentation for actual additional costs at the site, or other expenses caused by the selection under the allowance, prior to execution of the work.
- D. Failure to submit claims within the designated time will constitute a waiver of claims for additional costs.

1.6 SELECTION AND PURCHASE

- A. At the earliest practical date after award of the Contract, advise the Project Manager of the date when final selection and purchase of each product or system described by an allowance must be completed to avoid delaying the Work.
- B. At the Project Manager's request, obtain proposals for each allowance for use in making final selections. Include recommendations that are relevant to performing the Work.
- C. Purchase products and systems selected by the Project Manager from the designated supplier.

1.7 SUBMITTALS

- A. Submit proposals for purchase of products or systems included in allowances, in the form specified for Change Orders.
- B. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance

- C Coordinate and process submittals for allowance items in same manner as for other portions of the Work
- D Schedule shop drawings, product data, samples, and delivery dates, in Progress Schedule for products selected under allowances

1.8 COORDINATION

- A Coordinate allowance items with other portions of the Work.
- B Furnish templates as required to coordinate installation.

1.9 PROJECT MANAGER RESPONSIBILITIES

- A Consult with the Contractor in consideration of products, suppliers, and installers.
- B Select products and transmit full information in writing to the Contractor as follows:
 - 1 Manufacturer, product, model or catalog number, accessories, attachments, and finishes.
 - 2 Supplier and installer as applicable.
 - 3 Cost to Contractor, delivered to site, and installed, if so specified.

1.10 CONTRACTOR RESPONSIBILITIES

- A Assist the Project Manager in determining suppliers and installers; obtain proposals when requested.
- B Make recommendations for the Project Manager's consideration.
- C Promptly notify the Project Manager of any reasonable objections against supplier or installer.
- D On notification of selection, execute purchase agreement with designated supplier and installer.
- E Arrange for and process shop drawings, product data, and samples.
- F Arrange for delivery. Promptly inspect products upon delivery for completeness, damage, and defects. Submit claims for transportation damage.

- G Install, adjust, and finish products
- H Provide warranties for products and installation

1.11 CONTINGENCY ALLOWANCE

- A Use the contingency allowance only as directed by the Project Manager for the City's purposes, and only by Change Orders which designate amounts to be charged to the allowance
- B The Contractor's related costs for products or equipment ordered by the City under the contingency allowance, including delivery, installation, taxes, insurance, equipment rental, and similar costs that are not part of the Contract Sum
- C Change Orders authorizing use of funds from the contingency allowance will not include the Contractor's related costs and reasonable overhead and profit margins. Contractor shall include in base bid, Contractor's overhead, profit, insurance, bond and other direct cost.
- D At Project closeout, credit unused amounts remaining in the contingency allowance to City by Change Order or transfer the remaining amounts to other allowances as directed by the Project Manager.

1.12 INSPECTION AND TESTING ALLOWANCES

- A Inspection and testing allowances include the cost of engaging testing agencies, actual tests and inspections, and reporting results
- B The allowance does not include incidental labor required to assist the testing agency, or costs for retesting upon failure of previous tests and inspections. The allowance also does not include costs of services not required by the Contract Documents. The cost for incidental labor to assist the testing agency shall be included in the Contract Sum.
- C At Project closeout, credit unused amounts remaining in the inspection and testing allowance to City by Change Order

1.13 UNUSED MATERIALS

- A Return unused materials purchased under an allowance to manufacturer or supplier for credit to City, after installation has been completed and accepted

- 1 If requested by the Project Manager, prepare unused material for storage by the City when it is not economically practical to return the material for credit. If directed by the Project Manager, deliver unused material to the City's storage space. Otherwise, disposal of unused material is the Contractor's responsibility.

- B Where it is not economically feasible to return unused material for credit and when requested by the Project Manager, prepare unused material for the City's storage, and deliver to the City's storage space as directed. Otherwise, disposal of excess material is the Contractor's responsibility.

PART II: PRODUCTS – NOT USED

PART III: EXECUTION

3.1 EXAMINATION

- A. Examine products covered by an allowance promptly on delivery for damage or defects. Return damaged or defective products to manufacturer for replacement.

3.2 PREPARATION

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related work

END OF SECTION

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SECTION 01255

CHANGE ORDER PROCEDURES

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

A. Procedures for processing Change Orders, including:

1. Assignment of a responsible individual for approval and communication of changes in the Work;
2. Documentation of change in Contract Price and Contract Time;
3. Change procedures, using proposals and Modifications;
4. Execution of Change Orders;
5. Correlation of Contractor submittals.

1.2 REFERENCES

A. Blue Book is defined as the Rental Rate Blue Book for Construction Equipment (a.k.a. Data Quest Blue Book).

1. Rental Rate is defined as the full-unadjusted base rental rate for the appropriate term of construction equipment

B. CFTS - City of Friendswood Technical Specifications

1. Document 00130 - Request For Proposal (RFP).
2. Document 00300 - Unit Price Form
3. Section 00500 - General Conditions
4. Document 00735 - Contractor Request For Information (RFI).
5. Document 00740 - Request For Clarification (RFQ)
6. Document 00750 - Minor Change in Work (MCW)
7. Document 00755 - Work Change Directive (WCD)
8. Document 00760 - Change Order (CO).

9 Document 00950 – Contractor Change Order Request

10 Section 01785 – Project Record Documents

1.3 RESPONSIBLE INDIVIDUAL

- A Provide a letter indicating the name and address of the individual authorized to execute Modifications, and who will be responsible for informing others in the Contractor's employ and the Subcontractors of changes to the Work. Provide this information at the pre-construction meeting.

1.4 DOCUMENTATION OF CHANGE IN THE CONTRACT PRICE AND THE CONTRACT TIME

- A. Maintain detailed records of changes in the Work. Provide full information required for identification and evaluation of proposed changes, and substantiate costs of changes in the Work.
- B Document each proposal for change in the Contract Price or the Contract Time with sufficient data to allow evaluation of proposal.
- C Include the following minimum information on proposals:
- 1 Quantities of items in original Document 00300 – Unit Price Form with additions, reductions, deletions, and substitutions.
 2. Quantities and cost of items in the original Schedule of Values with additions, reductions, deletions and substitutions
 - 3 Provide Unit Prices for new items, with supporting information, for inclusion in the Schedule of Unit Price Work.
 - 4 Justification for changes in the Contract Time.
 5. Additional data, upon request.
- D For changes in the Work performed on a time-and-material basis, provide the following additional information:
- 1 Quantities and description of Products
 2. Taxes, insurance and Bonds
 3. Overhead and profit as noted in Section 00500 – General Conditions.

- 4 Dates, times and by who work was performed.
 - 5 Time records and certified copies of applicable payrolls
 6. Invoices and receipts for Products, rental equipment, and subcontracts, similarly documented.
- E. For changes in the Work performed on a time-and-materials basis, rental equipment is paid as follows:
1. Actual invoice cost for duration of time required to complete extra work without markup for overhead and profit. When extra work comprises only a portion of a rental invoice where equipment would otherwise be on site, compute hourly equipment rate by dividing the actual monthly invoice by one hundred and seventy-six (176). One day (1 D) equals eight hours (8 Hrs) and one week (1 Wk) equals forty hours (40 Hrs)
 2. Do not exceed estimated operating costs given in Houston Area Blue Book for items of equipment. Overhead and profit will be allowed on the operating cost.
- F. For changes in the Work performed on a time-and-materials basis using Contractor-owned equipment, use Houston Area Blue Book rates as follows:
1. Contractor-owned equipment will be paid at the Houston Area Blue Book Rental Rate for the duration of time required to complete extra work without markup for overhead and profit. Utilize lowest cost combination of hourly, daily, weekly or monthly rates. Use one hundred fifty percent (150%) of Rental Rate for double shifts, one (1) extra shift per day; and two hundred percent (200%) of Rental Rate for more than two (2) shifts per day. Standby rates shall be fifty percent (50%) of the appropriate Rental Rate shown in Houston Area Blue Book. No other rate adjustments apply.
 2. Do not exceed estimated operating costs given in Houston Area Blue Book. Overhead and profit will be allowed on operating costs. Operating costs will not be allowed for equipment on standby

1.5 CHANGE PROCEDURES

- A. Changes to the Contract Price or the Contract Time can only be made by issuance of Document 00950 – Contractor Change Order Request

Issuance of Document 00755 – Work Change Directive (WCD) will be formalized into a Change Order. Changes will be in accordance with requirements of Section 00500 -General Conditions

- B. The Project Manager shall advise of Minor Changes in the Work as authorized by the Section 00500 – General Conditions by issuing Document 00750 – Minor Change in Work (MCW)
- C. Request clarification of Drawings, Specifications, Contract documents or other information by using Document 00735 – Contractor Request For Information (RFI). Response by the Project Manager to RFI's or RFC's does not authorize the Contractor to perform tasks outside scope of the Work. Changes must be authorized as described in this Section

1.6 PROPOSALS AND CONTRACT MODIFICATIONS

- A. The Project Manager may issue Document 00130 – Request for Proposal which includes a detailed description of the proposed change with supplementary or revised Drawings and Specifications. The Project Manager may also request a proposal in response to a Request for information. Prepare and submit the proposal within seven days (7 D) or as specified in request.
- B. Submit requests for Contract changes to the Project Manager describing proposed change and its full effect on the Work, with a statement describing reason for change and effect on the Contract Price and the Contract Time including full documentation
- C. Design Consultant may be requested by the City to review Change Orders.

1.7 WORK CHANGE DIRECTIVE

- A. The Project Manager may issue a signed Work Change Directive instructing the Contractor to proceed with a change in the Work. The Work Change Directive shall subsequently be incorporated into a Change Order.
- B. Work Change Directives shall describe changes in the Work and designate the method of determining change in the Contract Price or the Contract Time
- C. Proceed promptly to execute changes in the Work in accordance with the Work Change Directive.

1.8 STIPULATED PRICE CHANGE ORDER

- A A Total Stipulated Price Change Order will be based on an accepted proposal

1.9 UNIT PRICE CHANGE ORDER

- A. Where Unit Prices for affected items of the Work are included in Document 00300 – Unit Price Form, the Change Order will be based on Unit Prices, subject to Section 00500 – General Conditions.
- B. Where Unit Prices of the Work are not pre-determined in Document 00300 – Unit Price Form, the Work Change Directive or accepted proposal shall specify the Unit Prices to be used.

1.10 TIME-AND-MATERIAL CHANGE ORDER

- A Provide itemized account and supporting data after completion of change, within time limits indicated for claims in Section 00500 – General Conditions.
- B. The Project Manager shall determine the change allowable in the Contract Price and Contract Time as provided in Section 00500 – the General Conditions.
- C. Maintain detailed records for work done on time-and-material basis as specified in Paragraph 1.4 above.
- D. Provide full information required for evaluation of changes and substantiate costs for changes in the Work. The Project Manager shall verify all time-and-material items submitted.

1.11 EXECUTION OF CHANGE DOCUMENTATION

- A The Project Manager shall issue Change Orders, Work Change Directives or Minor Change in the Work for signatures of Parties as described in Section 00500 – General Conditions

1.12 CORREALATION OF CONTRACTOR SUBMITTALS

- A For Total Stipulated Price Contracts, promptly revise the Schedule of Values and Application for Payment forms to record authorized Change Orders as a separate line item
- B For Unit Price Contracts, the next month's estimate of the Work after acceptance of a Change Order shall be revised to include new items not previously included with appropriate Unit Prices.

- C Promptly revise progress schedules to reflect change in the Contract Time, and to adjust time for other items of work affected by the change and resubmit for review
- D Promptly enter changes to on-site and record copies of the Drawings, the Technical Specifications or the Contract Documents as required in Section 01785 – Project Record Documents

1 13 ACCEPTANCE OF CHANGE ORDER

- A Document 00760 Change Order (CO) once executed by the Contractor and the City shall be the only acceptable document that shall be allowed to change the Contract Price or the Contract Time
- B No work shall be performed that changes the Contract Price without an approved and signed Change order, Work Change Directive or Minor Change in Work. Any and all work that proceeds without authorization shall be at the Contractors expense and risk.
- C When submitting a request for Change Order or a proposal for Work Change Directive or Minor Change in Work, submit all changes to the Contract Time that such a change to the Contract shall affect. If no change in the Contract Time is submitted at the time request for change in the Contract is submitted, it shall be awarded no time for the change. Time shall not be submitted at the end of the project to recoup lost time due to changes in the Work.
- D Time and material changes shall be finalized in a Change Order after the change in work has been completed. Actually time paid under this Change Order shall be added to the Contract to change the Contract Time.

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END OF SECTION

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SECTION 01270

MEASUREMENT AND PAYMENT

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Procedures for measurement and payment plus conditions for nonconformance assessment and nonpayment for rejected products.

1.2 AUTHORITY

- A Measurement methods delineated in Technical Specification Sections are intended to complement criteria of this section. In event of conflict, requirements of paragraph 3.1 of this Technical Specification Section shall govern.
- B The Project Manager shall take all measurements and compute quantities accordingly.
- C Assist the Project Manager by providing necessary equipment, workers and survey personnel.
- D Measurement and Payment paragraphs are included only in those Specification Sections of Division 1 where direct payment shall be made. Include costs in total bid price for those Specification sections in Division 1 that do not contain Measurement and Payment paragraphs.

1.3 UNIT QUANTITIES SPECIFIED

- A Quantity and measurement estimates stated in the Agreement are for contract purposes only. Quantities and measurements supplied or placed in the Work and verified by the Project Manager shall determine payment as stated in Section 00500 – General Conditions.
- B When actual work requires greater or lesser quantities than those quantities indicated in Document 00300 – Unit Price Forms, provide required quantities as approved by the Project Manager at Unit Prices contracted, except as otherwise stated in Section 00500 – General Conditions.

1 4 MEASUREMENT OF QUANTITIES

- A Measurement by Weight. Reinforcing steel, rolled or formed steel or other metal shapes are measured by CRSI or AISC Manual of Steel Construction weights. Welded assemblies are measured by CRSI or AISC Manual of Steel Construction or scale weights.
- B Measurement by Volume:
- 1 Stockpiles: Measured by cubic dimension using mean length, width and height or thickness.
 - 2 Excavation and Embankment Materials: Measured by cubic dimension using average end area method.
- C. Measurement by Area: Measured by square dimension using mean length and width or radius.
- D. Linear Measurements: Measured by linear dimension at item centerline or mean chord.
- E. Stipulated Price Measurement: By unit designated in the Agreement.
- F. Measured by Each: Measured by each instance or item provided.
- G. Measured by Lump Sum: Measure includes all associated work, whether stipulated or incidental to complete the Work described.
- H. Other: Items measured by weight, volume, are or linear means or combination, as appropriate, as completed item or unit of the Work.

1 5 PAYMENT

- A. Payment includes full compensation for all required supervision, labor, Products, tools, equipment, plant, transportation, services, and incidentals; and erection, application or installation of an item of the Work; and Contractor's overhead and profit.
- B. Total compensation for required Unit Price work shall be included in Unit Price in Document 00300 – Unit Price Forms. Claims for payment as Unit Price work, but not specifically covered in the list of Unit Prices contained in Document 00300 – Unit Price Forms, shall not be accepted.
- C. Interim payments for stored materials shall be made only for materials to be incorporated under items covered in unit prices, unless disallowed.

in Section 00600 – Supplemental Conditions. Only material that is stored on-site and in quantities verified by the Project Manager shall be allowed for payment

- D. Progress payments shall be based on the Project Manager's observations and evaluations of quantities incorporated in the Work multiplied by Unit Price.
- E. Change Order shall be measured as Lump Sum items. Payment for Change Orders shall be based on the Project Manager's observation after change order work is completed. Any work started or completed on a change order that has not been approved shall not be applicable for payment.
- F. Final payment for the Work governed by Unit Prices shall be made on the basis of actual measurements and quantities determined by the Project Manager multiplied by the Unit Price for the Work which is incorporated in or made necessary by the Work.

1.6 NONCONFORMANCE ASSESSMENT

- A. Remove and replace work, or portions of the Work, not conforming to the Contract Documents.
- B. When not practical to remove or replace work, Director of Community Development shall direct one of the following remedies.
 - 1. Nonconforming work shall remain as is, but Unit Price shall be adjusted lower at the discretion of the Director of Community Development.
 - 2. Nonconforming work shall be modified as directed by the Director of Community Development and the Unit Price shall be adjusted lower at the discretion of the Director of Community Development, when modified work is deemed less suitable than that originally specified.
- C. Specification sections may modify the above remedies or may identify a specific formula or percentage of price reduction.
- D. Authority of Director of Community Development to assess nonconforming work and identify payment adjustment is final.

1.7 NONPAYMENT FOR REJECTED PRODUCTS

- A. Payment shall not be made for any of the following

- 1 Products wasted or disposed of in an unacceptable manner
- 2 Products determined as nonconforming before, during or after placement
- 3 Products not completely unloaded from transporting vehicles
- 4 Products placed beyond lines and levels of required work.
- 5 Products remaining on hand after completion of the Work, unless specified otherwise.
- 6 Loading, hauling and disposing of rejected Products.
- 7 Products, either new or existing, that were damaged by the Contractor or one (1) of the Contractor's subs.

1.8 REFERENCES

A. CFTS – City of Friendswood Technical Specifications

- 1 Section 00300 – Unit Price Forms.
- 2 Section 00500 – General Conditions.
- 3 Section 00600 – Supplemental Conditions.

PART II: PRODUCTS – NOT USED.

PART III: EXECUTION

3.1 DESCRIPTION, MEASUREMENT, AND PAYMENT OF UNIT PRICE FORM ITEMS

(INSERT DESCRIPTION OF BID ITEMS HERE)

END OF SECTION

SECTION 01290

PAYMENT PROCEDURES

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

A. Form

1. Use Document 00940 – Contractor Pay Application
2. Use Document 00945 – Contractor Pay Request.
3. Use Document 00975 – Time Request.

All weather request or delays due to acts outside of the Contractor's control shall be submitted on this document with each application for payment. Failure to do so during the period covered by the application shall result in no time being given at all. No Exceptions. Time shall not be accumulated and added at the end of the Contract.

- ###### **B.**
- All forms shall be provided to the Contractor on a Compact Disc (CD) at the Pre-construction Meeting.

1.2 REFERENCES

A CFTS – City of Friendswood Technical Specifications.

- 1 Section 00500 – General Conditions
- 2 Document 00775 – Certification of Payment to Subcontractors and Suppliers.
- 3 Document 00780 – Certificate of Substantial Completion
- 4 Document 00785 – Punch List.
- 5 Document 00790 – Contractors Certification of Final Completion
- 6 Document 00795 – Notice of Final Completion

- 7 Document 00800 – One-Year Maintenance Bond
- 8 Document 00805 – Extended Warranty Maintenance Bond, if required.
9. Document 00940 – Contractor Pay Application.
- 10 Document 00945 – Contractor Pay Request.
11. Document 00975 – Time Request.
12. Section 01785 – Project Record Documents.

1.3 APPLICATION FOR PROGRESS PAYMENT

- A. Review all items to be applied for payment with the Project Manager before submitting a progress payment
- B. There shall be no separate payment for stored materials. Stored materials shall be paid under the Schedule of Payments for the actual cost of items requested. Progress payment shall be accompanied with a copy of paid Bill of Sale for materials claimed.
- C. Attach the following to each application in this order.
 1. Document 00940 – Contractor Pay Application.
 2. Document 00945 – Contractor Pay Request
 3. Document 00975 – Time Request
 4. Progress Schedule, updated and current, indicating the progress through the period covered by the application and scheduled progress through completion of the Work.
 5. Submittal log for the entire project through the period covered by the application.

1.4 APPLICATION FOR PAYMENT AFTER SUBSTANTIAL COMPLETION

- A. The Contractor shall request an inspection for substantial completion in writing to the Project Manager
- B. The Project Manager and other appropriate entities shall, on a date set by the Project Manager, review the Work. If all are in agreement that the Work is substantially complete, the Project Manager shall issue

Document 00780 – Certificate of Substantial Completion and Document 00785 – Punch List.

- C After the Contractor has received the Substantial Completion certificate, the Contractor shall submit application for payment with the following requirements:

- 1 All documentation as required in paragraph 1.3 C of this Section.
- 2 Letter of Consent from Surety approving reduction in retainage.
- 3 Reduction in retainage as allowed by Section 00500 – General Conditions.

1.5 APPLICATION FOR FINAL PAYMENT

- A The Project Manager and the Contractor shall review all items listed on Document 00785 – Punch List and verify that all items are complete before executing the following steps for Final Application.
- B. Submit Document 00940 – Contractor Pay Application and Document 00945 – Contractor Pay Request with the following attached:
1. Document 00790 – Contractors Certification of Final Completion.
 2. Document 00775 – Certification of Payment to Subcontractors and Suppliers.
 3. Document 00800 – One-Year Maintenance Bond
 4. Document 00805 – Extended Warranty Maintenance Bond, if required.
 5. Final Balancing Change Order for any unused items.
 6. All Operation and Maintenance Manuals.
 7. All Project Record Documents as required by Section 01785 – Project Record Documents
 8. As-built Drawings

- C. The Project Manager, upon receipt of all documents in paragraph 1.5 B of this Section, shall schedule Final Acceptance at the next regular City

Council meeting.

- D. Once the City Council has accepted the project, the Project Manager shall send the Contractor Document 00795 – Notice of Final Completion and release the Final Payment to the Contractor.

END OF SECTION



SECTION 01295

SCHEDULE OF VALUES

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Preparation and submittal of Schedule of Values for Total Stipulated Price Contracts or for Major Unit Price Work or Unit Price Contracts

1.2 PREPARATION

- A. For Total Stipulated Price Contracts, subdivide the Schedule of Values into logical portions of the Work, such as major work items, major trades and divisions, or work in contiguous construction areas. Use Section 01325 - Construction Schedule as a guide to subdivision of work items. Directly correlate items in the Schedule of Values with tasks in the Construction Schedule. Organize each portion using the Project Manual Table of Contents as an outline for listing value of the Work by Sections. A pro rata share of mobilization, Bonds, and Insurance may be listed as separate items for each portion of the Work.
- B. For Unit Price Contracts, items shall use the bid items for the Schedule of Values.
- C. For lump sum equipment items, where submittal of operation and maintenance data and testing are required, include separate items for equipment operation and maintenance data where:
1. Submittal of maintenance data shall be valued at five percent (5%) of the lump sum amount for each equipment item.
 2. Submittal for testing and adjusting shall be valued at five percent (5%) of the lump sum amount for each equipment item.
 3. Round off figures for each item listed for operation and maintenance data and/or testing and adjusting to the nearest one hundred dollars (\$100). Set the value of one (1) item, when necessary, to make all values equal the Contract Price for Total Stipulated Price Contract or lump sum amount for Unit Price Work.

1.3 SUBMITTAL

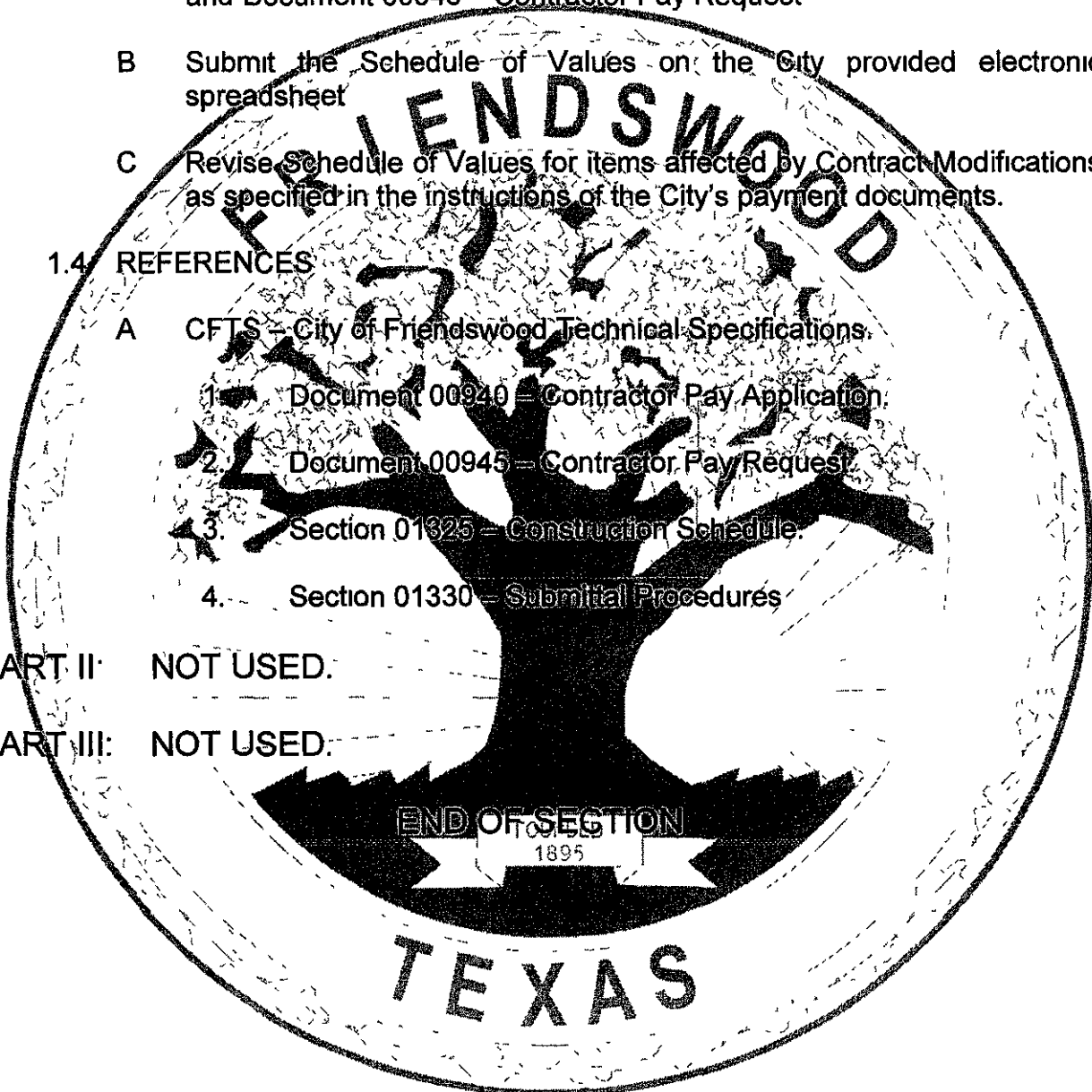
- A Submit the Schedule of Values in accordance with the requirements of Section 01330 – Submittal Procedures at least fifteen days (15 D) prior to processing of the first Document 00940 – Contractor Pay Application and Document 00945 – Contractor Pay Request
- B Submit the Schedule of Values on the City provided electronic spreadsheet
- C Revise Schedule of Values for items affected by Contract Modifications as specified in the instructions of the City's payment documents.

1.4 REFERENCES

- A CFTS – City of Friendswood Technical Specifications.
 - 1. Document 00940 – Contractor Pay Application.
 - 2. Document 00945 – Contractor Pay Request.
 - 3. Section 01325 – Construction Schedule.
 - 4. Section 01330 – Submittal Procedures

PART II: NOT USED.

PART III: NOT USED.



SECTION 01310

PROJECT MANAGEMENT AND COORDINATION

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Administrative provisions for coordinating construction operations on Project including, but not limited to, the following:

1. Coordination Drawings.
2. Administrative procedures.
3. Administrative and supervisory personnel.
4. Project meetings.
5. Requests for Information (RFIs).

- B. Each contractor shall participate in coordination requirements.

1.2 DEFINITIONS

- A RFI: Request For Information (RFI). A request from the Contractor seeking information from the Contract Documents.
- B. RFC: Request For Clarification (RFC). A request from the Contractor seeking clarification of the Contract Documents.
- C. Construction Manager - the Contractor's Project Manager or person responsible for overseeing all aspects of the Work.
- D Superintendent - the Contractor's on site representative that shall coordinate all the daily activities of the Work.
- E Project Manager - the City's Project Manager and representative for the City.

1.3 COORDINATION

- A Coordination: Each Contractor shall coordinate its construction operations with those of other contractors and entities to ensure

efficient and orderly installation of each part of the Work. Each contractor shall coordinate its operations with operations, included in different Sections that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain the best results where installation of one (1) part of the Work depends on installation of other components, before or after its own installation.

2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.

3. Make adequate provisions to accommodate items scheduled for later installation.

4. Priority of Construction Space

- a. Coordinate installation of different components to ensure performance and accessibility for required maintenance, service, and repair of all components, including mechanical and electrical.

- b. Following is the Order of Priority of construction space

- 1) First: Ductwork.

- 2) Second: Fire protection piping

- 3) Third: Other piping

- 4) Fourth: Conduit.

B Condition of the Contract Drawings for Mechanical and Electrical Work:

1. The Drawings contain diagrammatic layouts and indicate general arrangement of systems, piping, conduit, etc.

2. Prior to installation of material and equipment, review and coordinate Work with Engineering, Architectural and Structural Drawings for exact space conditions; where not readily discernable request information from the Project Manager before proceeding.

3. Check Drawings of all other trades to verify extent of material

and equipment to be installed in spaces available and consider layout alternatives so that all requirements can be accommodated

4. Maintain maximum headroom at all locations without finished ceilings
5. Maintain finished ceiling heights as indicated.
6. Coordinate installations with other trades to prevent conflict with the Work of other trades and cooperate in making reasonable modifications in layout as needed.
7. Where conflicts occur with placement of mechanical and electrical materials as they relate to placement of other building materials, the Construction Manager shall be consulted for assistance in coordination of the available space to accommodate all trades.

C Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

1. Prepare similar memoranda for the City and separate contractors if coordination of their Work is required

D Administrative Procedures Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of the Contractor's Construction Schedule.
2. Preparation of the Schedule of Values
3. Installation and removal of temporary facilities and controls
4. Delivery and processing of submittals.
5. Progress meetings.
6. Pre-installation conferences.
7. Project closeout activities

8. Startup and adjustment of systems.

E Conservation Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials

- 1 Salvage materials and equipment involved in performance of, but not actually incorporated into the Work. Refer to other Sections for disposition of salvaged materials that are designated as City's property.

1.4 SUBMITTALS

A. Coordination Drawings: Areas of the Work requiring Coordination Drawings include (but not limited to) mechanical rooms, electrical rooms, equipment rooms, corridors, horizontal exits from duct shafts, cross-overs and any other areas where congestion of the Work occurs. Prepare Coordination Drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities.

1. Content: Project-specific information, drawn accurately to scale.

2. Do not base Coordination Drawings on reproductions of the Contract Documents or standard printed data. The Construction Documents in their original, copies or electronic file form are the Architect's or Engineer's instrument of service and are protected under copyright laws.

- a. (INSERT MEP FIRM NAME), and its consultants, shall provide electronic files for Contractor's, Subcontractor's or Vendor's use in the preparation of coordination drawings related to the Project, subject to the terms and conditions delineated in Division 1 Section "Summary of Work" and paragraph entitled "Transfer of Electronic Files."

- 3 Include the following information, as applicable

- a. Follow routing shown on the Contract Drawings for pipes, ducts, and conduit, as closely as practicable, place runs parallel with lines of building. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance and for repairs.

- b. Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
 - c. Indicate required installation sequences.
 - d. Indicate dimensions shown on the Contract Drawings and make specific note of dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to the Project Manager for resolution of such conflicts. Minor dimension changes and difficult installations shall not be considered changes to the Contract.
4. Number of Copies. Submit two (2) opaque copies of each submittal. The Project Manager shall through Construction Manager, shall return one (1) copy.
- a. Submit five (5) copies where Coordination Drawings are required for operation and maintenance manuals. The Project Manager and Construction Manager shall retain two (2) copies; remainder shall be returned. Mark up and retain one (1) returned copy as a Project Record Drawing.
5. Refer to individual Sections for Coordination Drawing requirements for Work in those Sections.
6. Each trade shall sign and date the Coordination Drawings after the addition of their information.
7. Do not begin fabrication until receipt of completed Coordination Drawings is acknowledged by the Construction Manager and approved by the Project Manager.
- B. Key Personnel Names: At the Pre-Construction meeting, but no later than the commencement of the Contract Time according to Document 00725 – Notice To Proceed, submit a list of key personnel assignments, including the Project Superintendent and other personnel in attendance at the Project site. Identify individuals and their duties and responsibilities, list addresses and telephone numbers, including home and office telephone numbers. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to the Project.

1. Post copies of list in Project meeting room, in temporary field office, and by each temporary telephone. Keep list current at all times.

1.5 ADMINISTRATIVE AND SUPERVISORY PERSONNEL

- A. General: In addition to the Project Superintendent, provide other administrative and supervisory personnel as required for proper performance of the Work.

1. Include special personnel required for coordination of operations with other contractors.

1.6 PROJECT MEETINGS

- A. General: The Construction Manager shall schedule meetings and conferences. The Project Manager shall conduct all meetings and conferences.

1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting.

2. The Construction Manager shall prepare the meeting agenda and distribute the agenda to all invited attendees.

3. The Construction Manager shall record significant discussions and agreements achieved and distribute the meeting minutes to everyone concerned, including the City and the Architect and/or the Engineer, within three days (3 D) of the meeting.

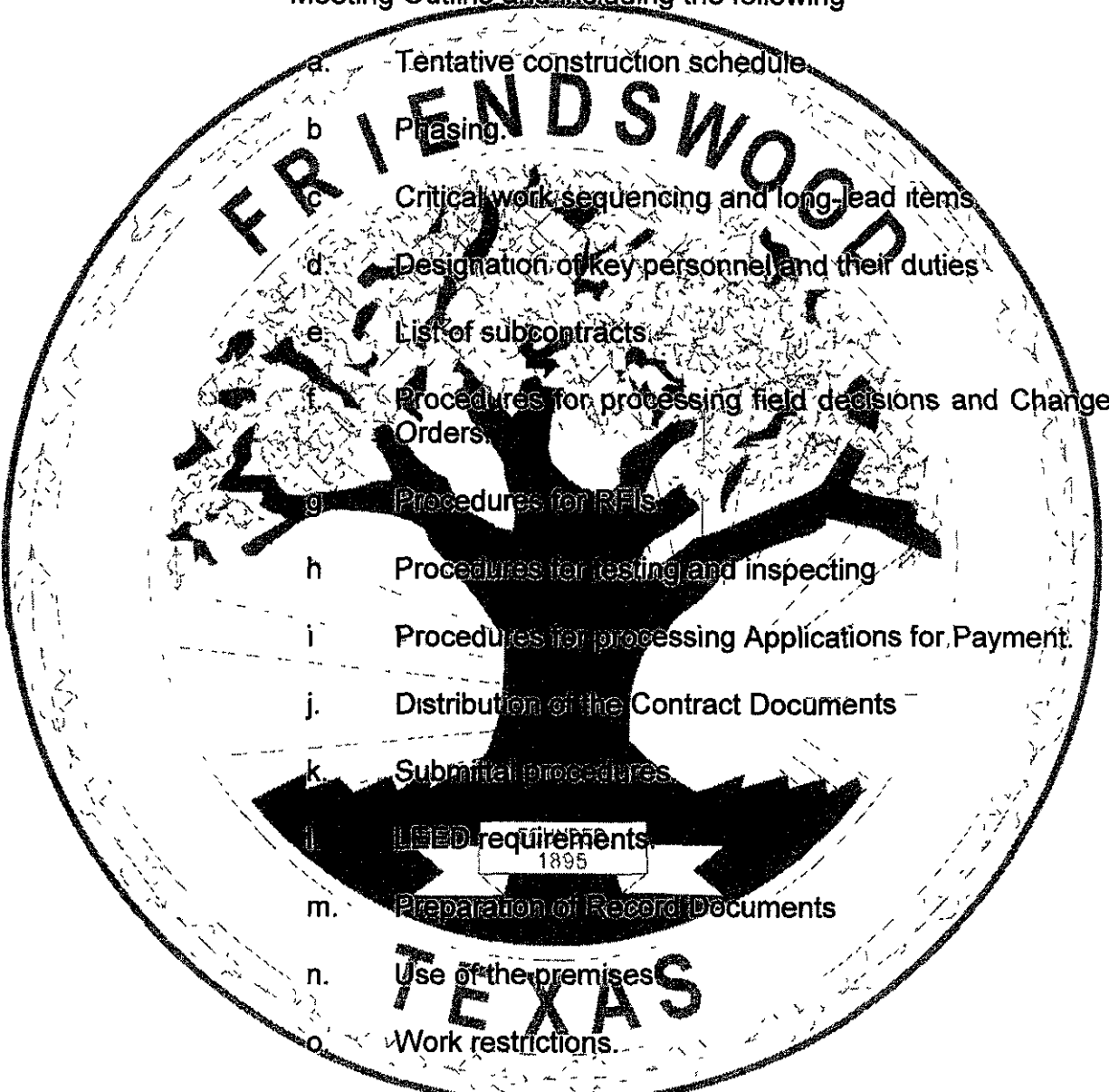
4. Decisions and interpretations given by the Project Manager at Project meetings shall be on behalf of the City and shall be conclusive on each Contractor affected.

- B. Preconstruction Conference: The Project Manager shall schedule a preconstruction conference before starting construction, at a time convenient to the City, the Construction Manager and the Architect and/or the Engineer, but no later than ten working days (10 wD) after execution of the Agreement. The meeting intent is to review responsibilities and personnel assignments.

1. Attendees: Authorized representatives of the City, the Project Manager, the Construction Manager, the Architect and/or the Engineer, and their consultants and other concerned parties as deemed necessary by the Project Manager shall attend the

conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.

2. Agenda: Discuss items of significance that could affect progress as specified in Document 00690 – Pre-Construction Meeting Outline and including the following

- 
- a. Tentative construction schedule.
 - b. Phasing.
 - c. Critical work sequencing and long-lead items.
 - d. Designation of key personnel and their duties.
 - e. List of subcontracts.
 - f. Procedures for processing field decisions and Change Orders.
 - g. Procedures for RFIs.
 - h. Procedures for testing and inspecting.
 - i. Procedures for processing Applications for Payment.
 - j. Distribution of the Contract Documents.
 - k. Submittal procedures.
 - l. LEED requirements.
 - m. Preparation of Record Documents.
 - n. Use of the premises.
 - o. Work restrictions.
 - p. City's occupancy requirements.
 - q. Responsibility for temporary facilities and controls.
 - r. Construction waste management and recycling.
 - s. Parking availability.

- t Office, work, and storage areas.
- u. Equipment deliveries and priorities
- v. First aid
- w Security.

x. Progress cleaning

y Working hours

- 3. Minutes: The Construction Manager shall record and distribute meeting minutes.

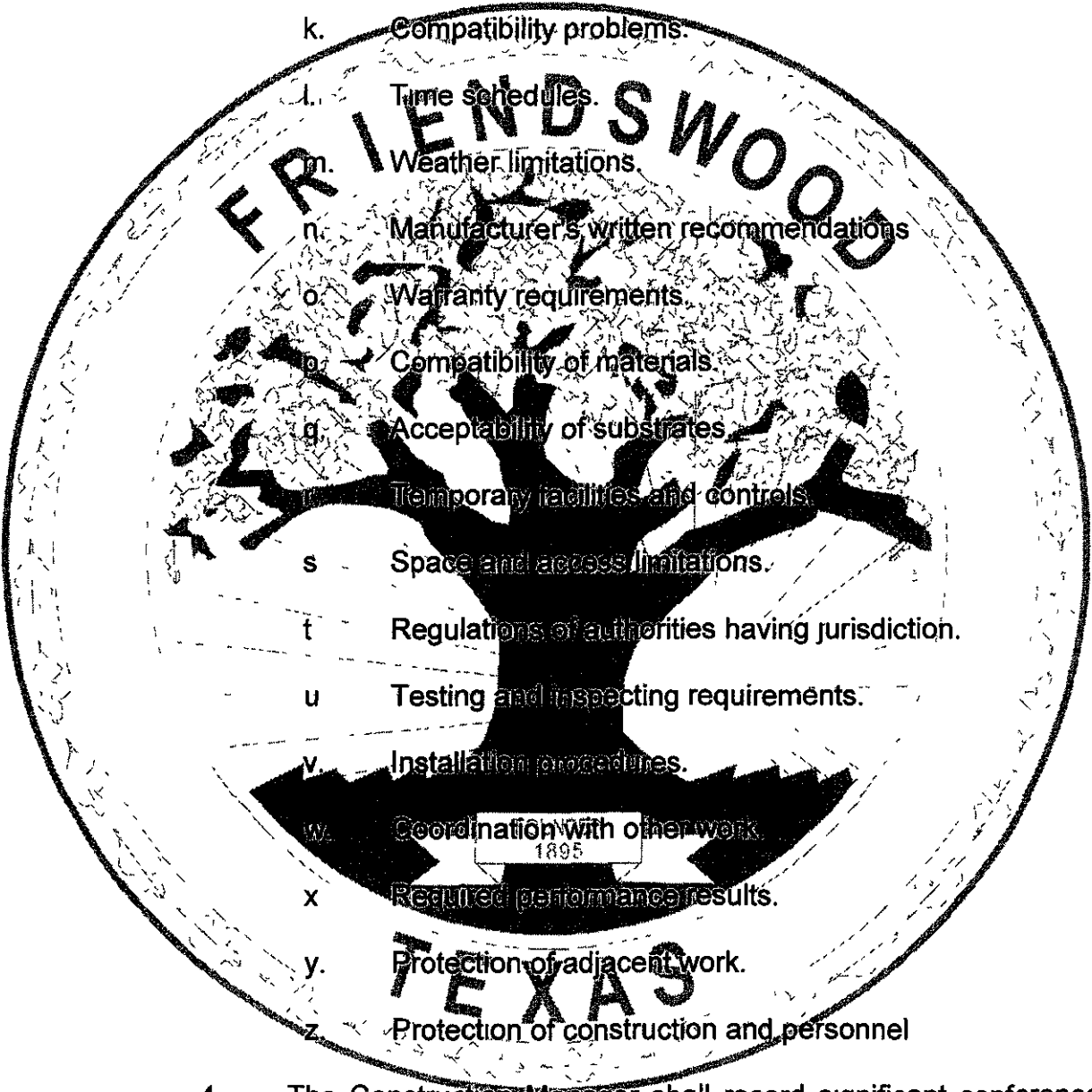
C Pre-installation Conferences: The Construction Manager shall conduct a pre-installation conference at Project site before each construction activity that requires coordination with other construction.

- 1 Scheduling: Pre-installation conferences shall be on same day of a progress meeting attended by the Project Manager and the Architect and/or the Engineer.

- 2 Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting.

- 3 Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:

- a. The Contract Documents
- b. Options
- c. Related RFIs
- d. Related RFCs.
- e. Related Change Orders
- f. Purchases.
- g. Deliveries.

- 
- h. Submittals.
 - i. Review of mockups.
 - j. Possible conflicts.
 - k. Compatibility problems.
 - l. Time schedules.
 - m. Weather limitations.
 - n. Manufacturer's written recommendations.
 - o. Warranty requirements.
 - p. Compatibility of materials.
 - q. Acceptability of substrates.
 - r. Temporary facilities and controls.
 - s. Space and access limitations.
 - t. Regulations of authorities having jurisdiction.
 - u. Testing and inspecting requirements.
 - v. Installation procedures.
 - w. Coordination with other work.
 - x. Required performance results.
 - y. Protection of adjacent work.
 - z. Protection of construction and personnel.

4. The Construction Manager shall record significant conference discussions, agreements, and disagreements, including required corrective measures and actions
5. The Construction Manager shall distribute minutes of the meeting to each party present and to parties who should have been present.

6. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

D Progress Meetings. The Project Manager shall conduct progress meetings at either biweekly or monthly intervals.

1. **Attendees:** In addition to representatives of the City, the Project Manager, the Construction Manager, the Architect and/or the Engineer, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.

2. **Agenda:** The Project Manager shall review and correct or approve minutes of previous progress meeting as well as other items of significance that could affect progress.

- a. **Construction Schedule:** Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to the Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

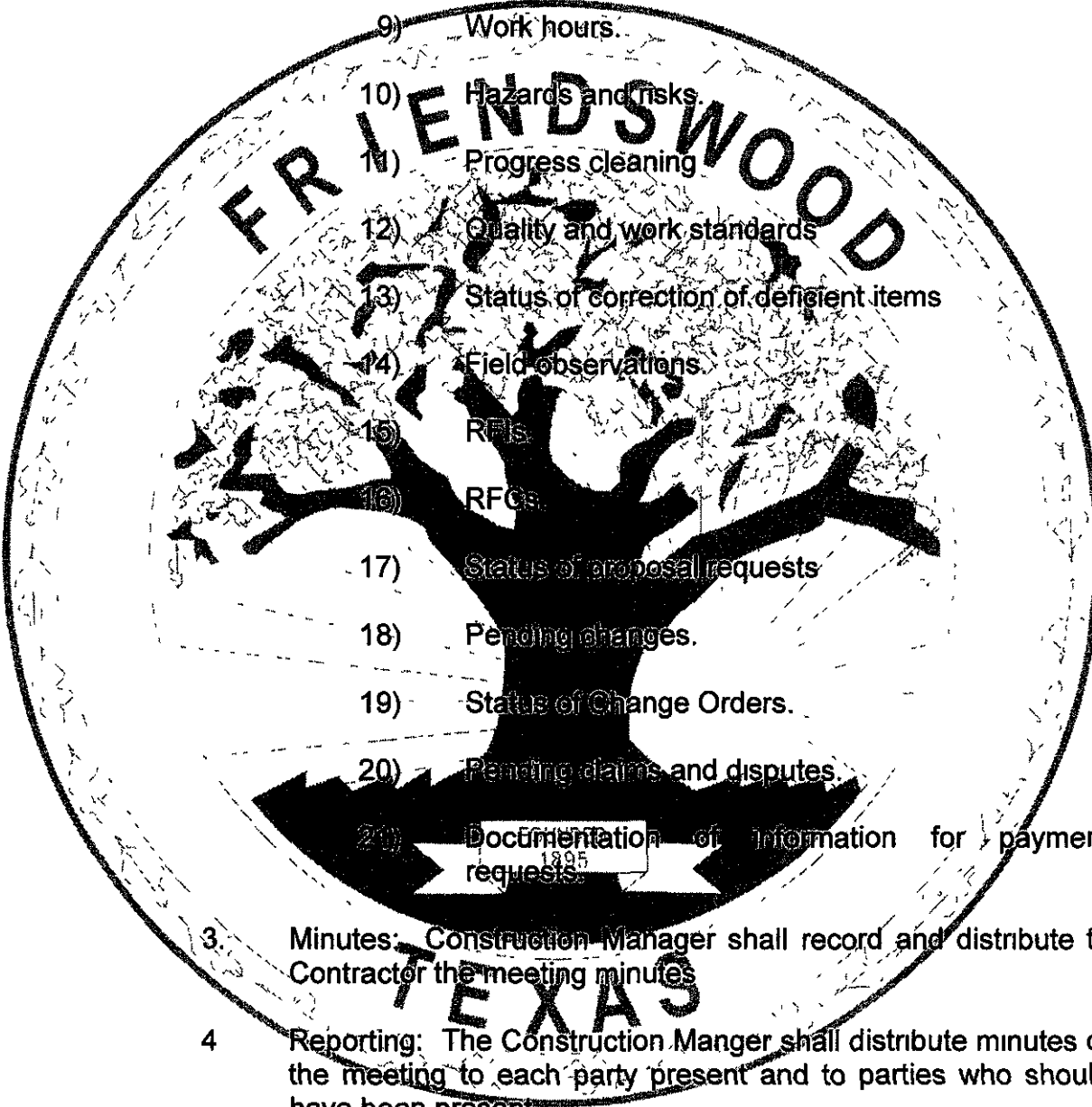
- 1) Review schedule for next period.

- b. Review present and future needs of each entity present, including the following:

- 1) Interface requirements.
- 2) Sequence of operations.
- 3) Status of submittals.
- 4) Deliveries.
- 5) Off-site fabrication.

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- 6) Access
- 7) Site utilization
- 8) Temporary facilities and controls
- 9) Work hours.

- 
- 10) Hazards and risks.
 - 11) Progress cleaning
 - 12) Quality and work standards
 - 13) Status of correction of deficient items
 - 14) Field observations.
 - 15) RFIs
 - 16) RFCs.
 - 17) Status of proposal requests
 - 18) Pending changes.
 - 19) Status of Change Orders.
 - 20) Pending claims and disputes.
 - 21) Documentation of information for payment requests.

3. Minutes: Construction Manager shall record and distribute to Contractor the meeting minutes
- 4 Reporting: The Construction Manger shall distribute minutes of the meeting to each party present and to parties who should have been present.
 - a Schedule Updating. Revise the Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

E Coordination Meetings: The Construction Manager shall conduct the Project coordination meetings at appropriate intervals. The Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and pre-installation conferences.

1 Attendees: In addition to representatives of the City, the Project Manager, the Construction Manager, the Architect and/or the Engineer, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with the Project and authorized to conclude matters relating to the Work.

2. Agenda: The Construction Manager shall review and correct or approve minutes of the previous coordination meeting, as well as review other items of significance that could affect progress.

a The Combined Contractor's Construction Schedule: The Construction Manager shall review progress since the last coordination meeting; determine whether each contract is on time, ahead of schedule, or behind schedule, in relation to the Combined Contractor's Construction Schedule; determine how construction behind schedule shall be expedited, secure commitments from parties involved to do so; discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

b Schedule Updating: The Construction Manager shall revise the Combined Contractor's Construction Schedule after each coordination meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with report of each meeting.

c The Construction Manager shall review present and future needs of each contractor present, including the following

- 1) Interface requirements**
- 2) Sequence of operations**

3) Status of submittals

4) Deliveries

5) Off-site fabrication

6) Access

7) Site utilization

8) Temporary facilities and controls.

9) Work hours

10) Hazards and risks

11) Progress cleaning

12) Quality and work standards

13) Change Orders

d. ~~Cutting and Patching:~~ The Construction Manager shall review scheduled cutting and patching proposals for areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

3. ~~Reporting:~~ The Construction Manager shall record meeting results and distribute copies to everyone in attendance and to others affected by decisions or actions resulting from each meeting.

1.7 REQUESTS FOR INFORMATION (RFIs)

A Procedure: Immediately on discovery of the need for information based on the Contract Documents, and if not possible to request information at the Project meeting, prepare and submit a Document 00735 – Contractor Request For Information (RFI).

1 All RFIs shall be submitted to the Project Manager for action

2. RFIs shall originate with the Contractor. RFIs submitted by entities other than the Contractor shall be returned with no response

3. Coordinate and submit RFIs in a prompt manner so as to avoid delays in the Contractor's work or work of the subcontractors
4. Frivolous RFIs: The Contractor shall compensate the City for the Architect's and/or the Engineer's time and expenses to process RFIs resulting from the Contractor's lack of studying and comparing the Contract Documents, coordinating their own Work, or repeating previous RFIs.

B Content of the RFI: Include a detailed, legible description of item needing clarification and the following:

1. Project name.
2. Date.
3. Name of Contractor.
4. Name of the Architect and/or the Engineer.
5. Name of the Construction Manager.
6. RFI number, numbered sequentially.
7. Technical Specification Section number and title and related paragraphs, as appropriate.
8. The Drawing number and detail references, as appropriate.
9. Field dimensions and conditions, as appropriate.
10. The Contractor's suggested solution(s). If the Contractor's solution(s) impact the Contract Time or the Contract Sum, the Contractor shall state impact in the RFI.
11. Contractor's signature.
12. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing information.
 - a. Supplementary drawings prepared by the Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments.

- C Software-Generated RFIs: Software-generated form to be provided by the Contractor using format given on CD at Pre-Construction Meeting with substantially the same content as indicated above

1. Photographs shall be electronic files in JPG format.
2. Attachments shall be electronic files in Adobe Acrobat PDF format.

- D The Architect's and/or the Engineer's and the Construction Manager's Action: The Architect and/or the Engineer and the Construction Manager shall review each RFI, determine action required, and return it. Allow seven working days (7 wD) for the Project Manager's response for each RFI. RFIs received after 1:00 p.m. shall be considered as received the following working day.

1. The following RFIs shall be returned without action:
 - a. Requests for approval of submittals
 - b. Requests for approval of substitutions
 - c. Requests for coordination information already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum.
 - e. Requests for information of the Project Manager's actions on submittals.
 - f. Incomplete RFIs or RFIs with numerous errors.

2. The Project Manager's action may include a request for additional information, in which case the Project Manager's time for response shall start again.

3. If the Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, submit Change Order Request within ten working days (10 wD) of receipt of the RFI response as provided by General Conditions of the Contract

- E On receipt of the Project Manager's and the Construction Manager's action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify the Project Manager and the Construction Manager within five working days (5 wD) if the

Contractor disagrees with response

1.8 REQUESTS FOR CLARIFICATION (RFCs)

A Procedure: Immediately on discovery of the need for clarification based on the Contract Documents, and if not possible to request clarification at the Project meeting, prepare and submit a Document 00735 – Request For Clarification.

1. All RFCs shall be submitted to the Project Manager for action.
2. RFCs shall originate with the Contractor. RFCs submitted by entities other than the Contractor shall be returned with no response.
3. Coordinate and submit RFCs in a prompt manner so as to avoid delays in the Contractor's work or work of the subcontractors.
4. **Frivolous RFCs:** The Contractor shall compensate the City for the Architect's and/or the Engineer's time and expenses to process RFCs resulting from the Contractor's lack of studying and comparing the Contract Documents, coordinating their own Work, or repeating previous RFCs.

B. Content of the RFC: Include a detailed, legible description of item needing clarification and the following:

1. Project name.
2. Date.
3. Name of Contractor.
4. Name of the Architect and/or the Engineer.
5. Name of the Construction Manager.
6. RFC number, numbered sequentially.
7. Technical Specification Section number and title and related paragraphs, as appropriate
8. The Drawing number and detail references, as appropriate
9. Field dimensions and conditions, as appropriate.

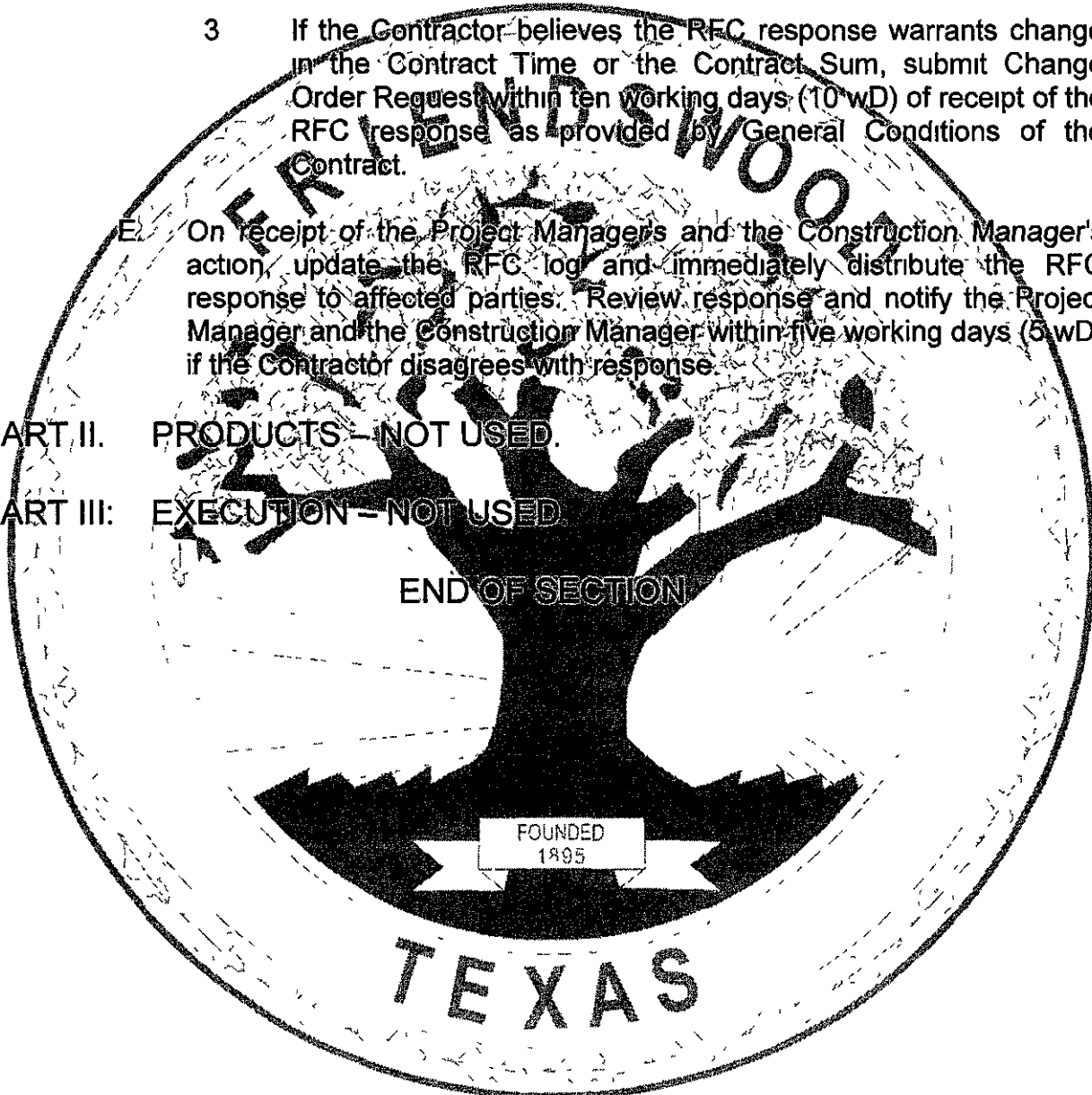
10. The Contractor's suggested solution(s). If the Contractor's solution(s) impact the Contract Time or the Contract Sum, the Contractor shall state impact in the RFC
11. Contractor's signature.
12. Attachments: Include drawings, descriptions, measurements, photos, Product Data, Shop Drawings, and other information necessary to fully describe items needing clarification.
 - a. Supplementary drawings prepared by the Contractor shall include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments.
- C. Software-Generated RFCs: Software-generated form to be provided by the Contractor using format given on CD at Pre-Construction Meeting with substantially the same content as indicated above.
 1. Photographs shall be electronic files in JPG format.
 2. Attachments shall be electronic files in Adobe Acrobat PDF format.
- D. The Architect's and/or the Engineer's and the Construction Managers Action: The Architect and/or the Engineer and the Construction Manager shall review each RFC, determine action required, and return it. Allow seven working days (7 WD) for the Project Managers response for each REC. RFCs received after 1:00 p.m. shall be considered as received the following working day.
 1. The following RFCs shall be returned without action:
 - a. Requests for approval of submittals.
 - b. Requests for approval of substitutions.
 - c. Requests for coordination clarification already indicated in the Contract Documents.
 - d. Requests for adjustments in the Contract Time or the Contract Sum
 - e. Requests for clarification of the Project Manager's actions on submittals

- f. Incomplete RFCs or RFCs with numerous errors
- 2. The Project Manager's action may include a request for additional clarification, in which case the Project Manager's time for response shall start again.
- 3. If the Contractor believes the RFC response warrants change in the Contract Time or the Contract Sum, submit Change Order Request within ten working days (10 wD) of receipt of the RFC response as provided by General Conditions of the Contract.
- E. On receipt of the Project Managers and the Construction Manager's action, update the RFC log and immediately distribute the RFC response to affected parties. Review response and notify the Project Manager and the Construction Manager within five working days (5 wD) if the Contractor disagrees with response.

PART II. PRODUCTS – NOT USED.

PART III: EXECUTION – NOT USED.

END OF SECTION



SECTION 01315

COORDINATION AND MEETINGS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A General coordination including pre-construction meeting, site mobilization conference, and progress meetings.

1.2 COORDINATION OF DOCUMENTS

- A. Coordination is required throughout documents. Refer to the Contract Documents and coordinate as necessary.

1.3 CONTRACTOR COORDINATION

- A. Coordinate scheduling, submittals, and work of various Technical Specification Sections to assure efficient and orderly sequence of installation of interdependent construction elements.
- B. Coordinate completion and clean up of the Work prior to the Date of Substantial Completion and for portions of the Work designated for the City's partial occupancy.
- C. Coordinate access to the site for correction of nonconforming work to minimize disruption of the City's activities where the City is in partial occupancy.

1.4 PRE-CONSTRUCTION MEETING

- A. The Project Manager shall schedule a pre-construction meeting.
- B. Attendance Required: City representatives, Design Consultant, special consultants as required by the Project Manager, the Contractor, and major Subcontractors and Suppliers.
- C. The Agenda shall be as specified in Section 00690 – Preconstruction Meeting Outline and shall include, but is not limited to, the following
1. Distribution of the Executed Contract Documents
 2. Designation of personnel representing the Parties and the Design Consultant.

- 3 Review of insurance.
- 4 Discussion of formats for the Schedule of Values and the Construction Schedule
- 5 Procedures and processing of Shop Drawings, substitutions, pay estimates or Applications for Payment, Requests for Information, Requests for Proposal, Modifications, and the Contract closeout and other submittals.
- 6 Scheduling of the Work and coordination with other contractors
- 7 Review of Subcontractors and Suppliers
8. Appropriate agenda items listed for the site mobilization conference Paragraph 1.5 C when pre-construction meeting and site mobilization conference are combined
- 9 Procedures for testing
10. Procedures for maintaining Record Documents

1.5 SITE MOBILIZATION CONFERENCE

- A When required by the Contract Documents, the Project Manager shall schedule a conference at the Project site prior to the Contractor mobilization.
- B Attendance Required: City representatives, Design Consultant, special consultants, Superintendent, and major Subcontractors.
- C Agenda:
 - 1 Use of premises by the City and the Contractor
 - 2 Safety and first aid procedures
 - 3 Construction controls provided by the City
 - 4 Temporary utilities
 - 5 Survey and layout
 6. Security and housekeeping procedures
 7. Field office requirements

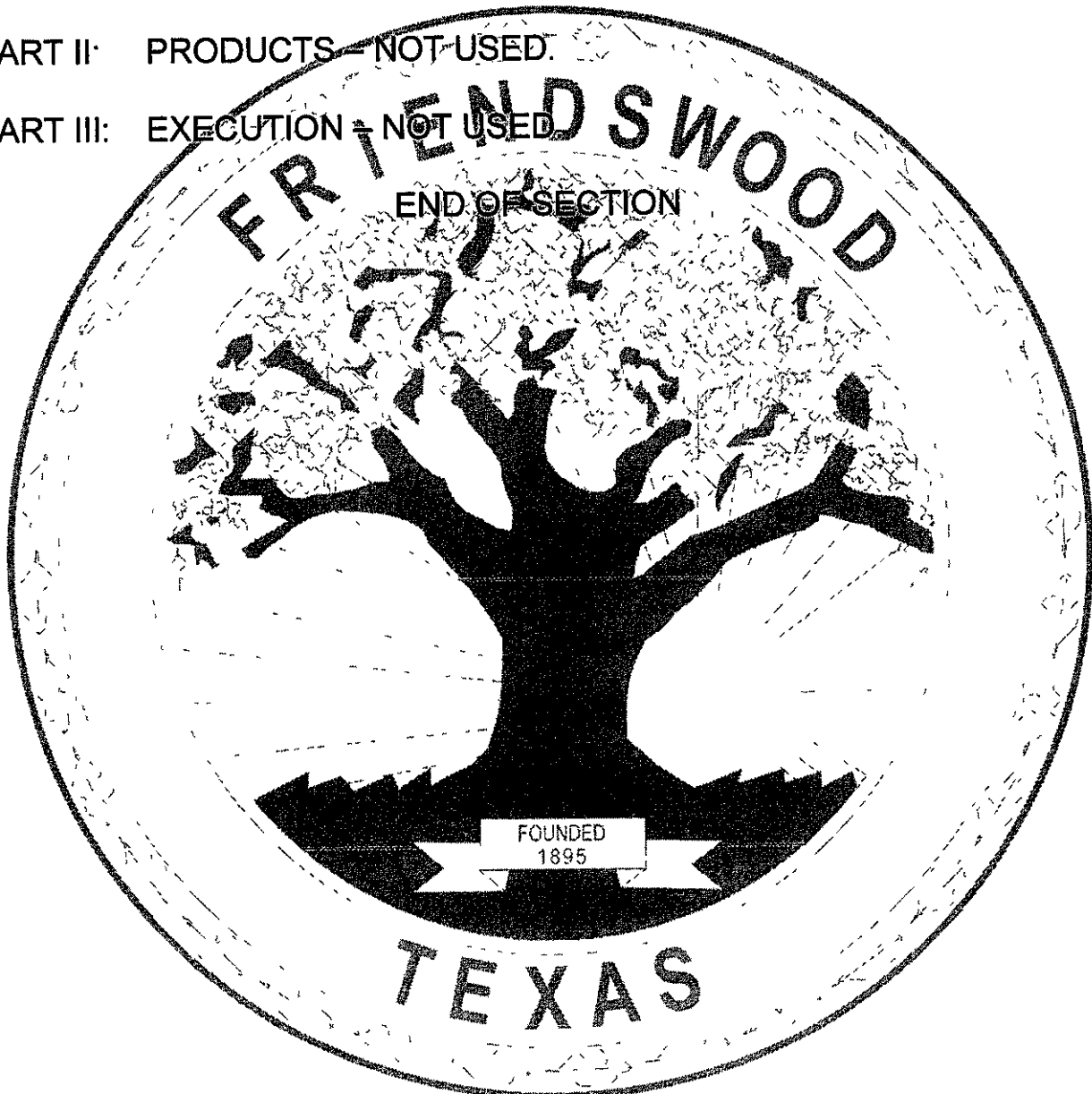
1 6 PROGRESS MEETINGS

- A. Hold meetings at the Project field office or other location designated by the Project Manager. Hold meetings at monthly intervals, or more frequently when directed by the Project Manager
- B. Attendance Required: Superintendent, major Subcontractors and Suppliers, City representatives, Design Consultant and its sub-consultants, as appropriate for agenda topics for each meeting.
- C. The Project Manager shall make arrangements for meetings, and for recording minutes.
- D. The Project Manager shall prepare the agenda and preside at meetings.
- E. Provide required information and be prepared to discuss each agenda item.
- F. Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of the construction schedule, pay estimates, cash flow curve, payroll and compliance submittals.
 - 3. Field observations, problems, and necessary decisions
 - 4. Identification of problems that impede planned progress.
 - 5. Review of submittal schedule and status of submittals.
 - 6. Review of RFI and RFP status
 - 7. Modification status
 - 8. Review of off site fabrication and delivery schedules
 - 9. Maintenance of the Construction Schedule
 - 10. Corrective measures to regain the Construction Schedule.
 - 11. Planned progress during the succeeding work period
 - 12. Coordination of projected progress
 - 13. Maintenance of quality and work standards

- 14 Effect of proposed Modifications on the Construction Schedule and coordination.
- 15 Review the Project Record Contract Drawings.
- 16 Other item relating to the Work

PART II: PRODUCTS - NOT USED.

PART III: EXECUTION - NOT USED.



SECTION 01320

CONSTRUCTION PHOTOGRAPHS

PART I. GENERAL

1.1 GENERAL REQUIREMENTS

- A Photographic and video requirements for construction photographs and submittals.

1.2 DEFINITIONS

- A Pre-construction Photographs: Photographs taken, in sufficient numbers and detail prior to Date of Commencement of the Work, to show original construction site conditions.
- B. Progress Photographs: Photographs taken throughout the duration of construction at regular intervals and from fixed vantage points, pre-approved by the City, that document progress of the Work.
- C. Finished Photographs: Photographs taken by a professional photographer near Date of Substantial Completion and before the City Council's acceptance of the Work, that are suitable for framing and for use in brochures or on the Internet.

1.3 SUBMITTALS

- A. Refer to Section 01330 - Submittal Procedures, for submittal requirements.
- B. Format and Media: Film or digital photography may be used. Submit color photographs, unless otherwise specified.

1. Prints. Submit each Progress or Pre-construction Photograph print in a three (3) hole plastic pocket or sleeve, bound in a three (3) ring notebook. Produce prints on photographic-quality paper approved by the Project Manager. Minimum size for Pre-construction Photograph prints shall be three inches by five inches (3 In x 5 In). Progress Photograph prints shall be eight inches by ten inches (8 In x 10 In).

2. Film. Use thirty-five millimeter (35 mm) or larger color film. Submit negatives used to make submitted photographs, in three (3) hole, eight and one-half inch by eleven inch (8-1/2 In x 11 In) plastic sheets with sleeves for negatives.

3. Digital Photography Use 2.1 megapixel density or greater for photographs. Scanned photographs must equal or exceed four hundred dots per inch (400 dpi) when scanned from eight inch by ten inch (8 In x 10 In) prints
4. Submit digital photographic files on computer disks. Format disks for MS-DOS (Microsoft Disk Operating System) filing system and in JPEG (Joint Photographic Experts Group) format

C Submittal Quantities and Frequencies

1. Pre-construction Photographs

- a. For Total Stipulated Price Contracts, submit one (1) set of Pre-construction Photographs, if required, prior to first (1st) Application for Payment
- b. For Unit Price Contracts, submit one (1) set of Pre-construction Photographs prior to start of construction operations

2. Progress Photographs

- a. For Total Stipulated Price Contracts, submit one (1) set of Progress Photographs with each Application for Payment at the times established for submittal of Applications for Payment. Monthly Applications for Payment shall be deemed incomplete if not accompanied by the required Progress Photographs. The Contractor's failure or election to not submit a monthly Application for Payment shall not affect the requirement for monthly Progress Photographs
- b. Unless otherwise specified, Progress Photographs are not required for Unit Price

3. Finished Photographs

- a. For Stipulated Price Contracts submit one (1) set of Finished Photographs, if required, after Date of Substantial Completion and prior to final payment. Each set shall contain one (1) – eleven inch by fourteen inch (11 In x 14 In) matte finish color photographic print from each of the two (2) vantage points pre-approved by the City. Vantage points for

Finished Photographs will be approved separately from vantage points approved for Progress Photographs

- b. Unless otherwise specified, Finished Photographs are not required for Unit Price.

- D Labeling. Place a label on the back of each photographic print, applied so as to not show through on the front. Labels shall contain the following information:

1. Name of Project, address of Project and Project Number.
2. Name and address of the Contractor.
3. Date the photograph was taken.
4. Location photo was taken from and short description of photo subject.
5. Name and address of professional photographer who took the photograph, if applicable.

- E. Hand-deliver or transmit prints in standard photographic mailers marked "Photographs -Do Not Bend".

- F. Photographic prints, negatives, photographic files and disks become the property of the City. Do not publish photographs without written consent by the City.

1.4 QUALITY ASSURANCE

- A. The Contractor shall be responsible for the quality of and timely execution and submittal of photographs.
- B. For Finished Photographs, the Contractor shall use a professional photographer, with five years (5 Yrs) minimum professional experience. The Contractor shall submit name, address and credentials of professional photographer for the Project Manager's review and approval.

PART II: PRODUCTS – NOT USED.

PART III: EXECUTION

3.1 PRE-CONSTRUCTION PHOTOGRAPHS

- A. Prior to commencement of construction operations, photograph the site to include initial construction corridor, detour routes, and staging or storage areas.

1. For Total Stipulated Price Contracts, unless specified as a requirement in other Sections, these photographs are optional for the Contractor, but are highly recommended for areas bounded by other property owners.
2. Pre-construction photographs are required for Unit Price Contracts. For line projects with scheduled construction segments, take Pre-construction Photographs prior to commencement of work on each segment.

- B. Prepare Pre-construction Photographs as follows.

1. Show the following information on a non-reflective chalkboard placed within the picture frame:

- a. Project Name.
- b. Project Number.
- c. Date and time photographs were taken (Automatic date/time in negative is acceptable).
- d. Baseline station, direction of view (i.e. N, S, NW, etc.) and house number or street address and street name

2. Pre-construction Photographs shall indicate condition of the following

- a. Esplanades and boulevards.
- b. Yards (near side and far side of street)
- c. House walks and sidewalks
- d. Curbs
- e. Areas between walks and curbs
- f. Particular features (e.g. yard lights, shrubs, fences,

trees)

3 Show date photographs were taken on negatives

C Show the location of vantage points and direction of shots on a key plan of the site.

3.2 PROGRESS PHOTOGRAPHS

A. Progress Photographs document monthly advancement of the Work. Select vantage points for each shot so as to best show status of construction and progress since last photograph submittal. Select camera stations that will require little or no movement or adjustment over the duration of construction.

B. Take monthly Progress Photographs at regular intervals to coincide with cutoff dates associated with each Application for Payment.

3.3 FINISHED PHOTOGRAPHS

A. Finished Photographs shall be "staged" and taken by a professional photographer to depict the most flattering images of a finished facility. Two (2) vantage points, from which Finished Photographs will be taken, shall be agreed to in advance by the City. Photographer shall consider lighting, time of day, height of eye, landscaping and placement of vehicles, people and other props in each picture. Filters and post-photography processing may be utilized to achieve a finished product acceptable to the City.

3.4 LOCATION

A. Vantage points, times and conditions for camera stations and photography for Progress and Finished Photographs shall be mutually agreed upon by the City, the Contractor and the Photographer. Progress Photograph vantage points may be changed by mutual agreement as the Work progresses; at no additional cost to the City.

END OF SECTION

SECTION 01325

CONSTRUCTION SCHEDULE

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Provide Construction Schedules for the Work included in this Contract in accordance with requirements in this Section. Create Construction Schedule using Critical Path Method (CPM) computer software capable of mathematical analysis of Precedence Diagramming Method (PDM) plan. Provide printed activity listings and bar charts in formats described in this Section.
- B. Combine activity listings and bar charts with narrative report to form the Construction Schedule submittal for the Project Manager.

1.2 SCHEDULING STAFF

- A. Employ or retain services of individual experienced in CPM scheduling for duration of the Contract. Individual shall cooperate with the Project Manager and update the schedule monthly as required to indicate current status of the work.

1.3 REFERENCES

- A. CFTS – City of Friendswood Technical Specifications.
 - 1. Section 00300 – General Conditions.
 - 2. Section 01315 – Coordination and Meetings.
 - 3. Section 01330 – Submittal Procedures.

1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.
- B. During preconstruction meeting, as described in Section 01315 – Coordination and Meetings, provide sample bar charts and activity listings produced from scheduling software proposed. Scheduling software is subject to review by the Project Manager and shall meet requirements provided in this Section. The Project Manager shall provide review of samples within seven days (7 D) of submittal.

- C Within twenty-one days (21 D) of receipt of approval of the Contractor's format, or thirty days (30 D) of the Notice to Proceed, whichever is later, submit proposed Construction Schedule for review. Base the Construction Schedule submittal on the following

- 1 Level of detail and number of activities required in schedule are dependent on project type

a. For projects with multiple types of tasks within scope, indicate types of work separately within schedule.

b. For projects with work at different physical locations or service areas, or different facilities within a site, indicate each location or facility separately within schedule.

c. For projects with multiple crafts or significant Subcontractor components, indicate elements separately within schedule. Unless permitted by the Project Manager, tasks shall consist of work covered by only one (1) division of Project Manual.

1) Unless permitted by the Project Manager, each scheduled task shall be same as Schedule of Values line item, and vice versa.

2) For projects with Major Unit Price Work, indicate Shop Drawing submittal and review, purchase delivery, and installation dates on the Project schedule. Include activities for testing, adjustment, and delivering O&M manuals.

3) No task except the acquisition of Major Unit Price Work shall represent more than one percent (1%) of the Original Contract Price for facility projects and three percent (3%) of the Original Contract Price for other projects. Duration of tasks may not exceed forty working days (40 wD).

4) For projects where operating facilities are involved, identify each period of work that will impact any process or operation in the schedule and that must be agreed to by the Project Manager and facility operator prior to starting work in the area.

D. Construction Schedule submittals shall include.

1. Printed bar charts that meet criteria outlined in this Section and are produced by the Contractor's approved scheduling software;
2. Activity listings that meet criteria outlined in this Section and are produced by the Contractor's approved scheduling software, and
3. A predecessor/successor listing sorted by Activity ID that meets criteria outlined in this Section and is produced by the Contractor's scheduling software.
4. A logic network diagram shall be required with the first (1st) Construction Schedule submittal for facilities projects
5. Prepare and submit graphic or tabular display of estimated monthly billings (i.e. a cash flow curve for the Work) with the first (1st) schedule submittal. This information is not required in monthly updates, unless significant changes in work require re-submittal of schedule for review. Display shall allocate units indicated in the bid schedule or the Schedule of Values to the Construction Schedule activities. Weighted allocations are acceptable, where appropriate. Dollar value associated with each allocated unit shall be spread across the duration of that activity on a monthly basis. Total for each month and cumulative total shall be indicated. These monthly forecasts are only for the Construction Manager's planning purposes. Monthly payments for actual work completed shall be made in accordance with Section 00500 - General Conditions.
6. Narrative Report that provides the information outlined in this Section.

- E** No payment shall be made until the Project Manager approves the Construction Schedule and billing forecast
- F** If Contractor desires to make changes in its method of operating and scheduling, after the Project Manager has reviewed original schedule, notify the Project Manager in writing, stating reasons for changes. When the Project Manager considers these changes to be significant, the Contractor may be required to revise and resubmit for review all or affected portion of the Contractor's Construction Schedule to show effect on the Work.

- G. Upon written request from the Project Manager, revise and submit for review all or any part of the Construction Schedule submittal to reflect changed conditions in the Work or deviations made from the original schedule.
- H. Updated Construction Schedule with actual start and actual finish dates, percent complete, and remaining duration of each activity shall be submitted monthly. Date used in updating the monthly Construction Schedule shall be the same date as used in the monthly Payment Application. Monthly update of the Construction Schedule is required for the monthly Payment Application to be processed for payment.

1.5 SCHEDULING COMPUTER SOFTWARE REQUIREMENTS

- A. The Contractor's scheduling software shall be capable of creating bar charts and activity listings, which can be sorted by various fields (i.e. Activity ID, Early Start, Total Float, Area Code, Specification Section number, and Subcontractor). Use software capable of producing logic network diagram.
- B. Use scheduling software capable of producing activity listings and bar charts with the following information for each activity in the schedule:
 - 1. Activity ID
 - 2. Activity Description
 - 3. Estimated (Original) Duration
 - 4. Remaining Duration
 - 5. Actual Duration
 - 6. Early Start Date
 - 7. Late Start Date
 - 8. Early Finish Date
 - 9. Late Finish Date
 - 10. Free Float
 - 11. Total Float
 - 12. Activity Codes (such as Area Code, Work Type, Specification Section, Subcontractor)

- C Use scheduling software capable of printing calendars using mathematical analysis of schedule, indicating standard workdays of week and scheduled holidays.
- D Use scheduling software capable of printing activity listing that indicates predecessors and successors, lag factors and lag relationships used in creating logic of the schedule
- E Use scheduling software to provide monthly time in Bar Chart format and scale with twelve month (12 Mo) scale not to exceed one (1) page width. Bar charts may be printed or plotted on eight and one-half inch by eleven inch (8-1/2 In x 11 In), eight and one-half inch by fourteen inch (8-1/2 In x 14 In) or eleven inch by seventeen inch (11 In x 17 In) sheet sizes. Over-size plots are not acceptable.

1.6 NARRATIVE SCHEDULE REPORT

- A. Narrative schedule report shall list activities started this month, activities completed this month, activities continued this month, activities scheduled to start or complete next month, problems encountered this month, and actions taken to solve these problems.
- B. Narrative schedule report shall describe changes made to the Construction Schedule logic (i.e. changes in predecessors and lags), activities added to schedule, activities deleted from schedule, any other changes made to the schedule other than addition of actual start dates and actual finish dates and changes of data date and remaining durations for re-calculation of mathematical analysis.

PART II: PRODUCTS - NOT USED

PART III: EXECUTION - NOT USED

**END OF SECTION
TEXAS**

SECTION 01330

SUBMITTAL PROCEDURES

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

A. Submittal procedures for:

1. Schedule of Values.
2. Construction Schedules and Cash Flow Curve (billing forecast).
3. Shop Drawings, Product Data and Samples.
4. Operations and Maintenance (O&M) Data.
5. Manufacturer's Certificates.
6. Construction Photographs.
7. Project Record Documents and monthly certification.
8. Video Media.
9. Design Mixes.

1.2 SUBMITTAL PROCEDURES

A. Scheduling and Handling:

1. Submit Shop Drawings, Product Data and Samples for related components as required by the Technical Specifications and the Project Manager.
2. Schedule submittals well in advance of need for construction Products. Allow time for delivery of Products after submittal approval.
3. Develop submittal schedule that allows sufficient time for initial review, correction, resubmission and final review of all submittals. Allow a minimum of thirty days (30 D) for initial review. The Project Manager will review and return submittals.

to the Contractor as expeditiously as possible but time required for review will vary depending on complexity and quantity of data submitted.

- 4 The Project Manager's review of submittals covers only general conformance to the Drawings, the Technical Specifications and dimensions that affect layout. The Contractor is responsible for quantity determination. No quantities will be verified by the Project Manager. The Contractor is responsible for errors, omissions or deviations from Contract Document requirements, review of submittals does not relieve the Contractor from the obligation to furnish required items in accordance with the Drawings and the Technical Specifications.

- 5 Submit three (3) copies of documents unless otherwise specified.

- 6 Revise and resubmit submittals as required. Identify all changes made since previous submittal.

- 7 Assume risk for fabricated Products delivered prior to approval. Do not incorporate Products into the Work or include payment for Products in periodic progress payments, until approved by the Project Manager.

B Transmittal Form and Numbering

- 1 Transmit each submittal to the Project Manager with Transmittal letter which includes:

a. Date and submittal number.

b. Project title and number.

c. Names of the Contractor, the Subcontractor, the Supplier and the Manufacturer.

d. Identification of Product being supplied.

e. Location of where Product is to be installed

f. Applicable Technical Specification section number

- 2 Identify deviations from Contract Documents clouding submittal drawings. Itemize and detail on separate eight and one-half inch by eleven inch (8-1/2 In x 11 In) sheets entitled

"DEVIATIONS FOR _____" When no deviations exist, submit a sheet stating no deviations exist.

- 3 Have design deviations signed and sealed by an appropriate Professional Engineer licensed by the State of Texas.
- 4 Sequentially number transmittal letters beginning with number one (1). Use original number for re-submittals with an alphabetic suffix [i.e., 2A for the first (1st) re-submittal of submittal 2; or 15C for third (3rd) re-submittal of submittal 15, etc.]. Show only one (1) type of work or Product on each submittal. Mixed submittals will not be accepted.

C. The Contractor's Stamp

- 1 Apply the Contractor's Stamp certifying that the items have been reviewed in detail by the Contractor and that they comply with Contract Document requirements, except as noted by requested variances.
- 2 As a minimum, the Contractor's Stamp shall include:
 - a. The Contractor's name.
 - b. Job number.
 - c. Submittal number.
 - d. Certification statement the Contractor has reviewed submittal and it is in compliance with the Contract Documents and the Technical Specifications.
 - e. Signature line for the Contractor

D Submittals will be returned with one (1) of the following Responses:

- 1 "ACKNOWLEDGE RECEIPT" when no response and re-submittal is required.
- 2 "NO EXCEPTION" when sufficient information has supplied to determine that item described is accepted and that no re-submittal is required
3. "EXCEPTIONS AS NOTED" when sufficient information has been supplied to determine that item will be acceptable subject to changes, or exceptions, which will be clearly stated. When

exceptions require additional changes, the changes must be submitted for approval. Re-submittal is not required when exceptions require no further changes

4. "REJECTED-RESUBMIT" when submittal does not contain sufficient information, or when information provided does not meet Contract Document requirements and the Technical Specifications. Additional data or details requested by the Project Manager must be submitted to obtain approval

1.3 MANUFACTURER'S CERTIFICATES

- A. When required by the Technical Specification sections, submit manufacturers' certificate of compliance for review by the Project Manager.
- B. Place the Contractor's Stamp on front of certification
- C. Submit supporting reference data, affidavits, and certifications as appropriate
- D. Product certificates may be recent or from previous test results, but must be acceptable to the Project Manager.

1.4 DESIGN MIXES

- A. When required by the Technical Specification sections, submit design mixes for review
- B. Place the Contractor's Stamp, as specified in this section, on the front of each design mix.
- C. Mark each mix to identify proportions, gradations, and additives for each class and type of mix submitted. Include applicable test results from samples for each mix. Perform tests and certifications within twelve months (12 Mo) of the date of the submittal.
- D. Maintain copies of approved mixes at mixing plant

1.5 CHANGES TO THE CONTRACT

- A. Changes to the Contract may be initiated by completing a Request for Information form. The Project Manager will provide a response to the Contractor by completing the form and returning it to the Contractor

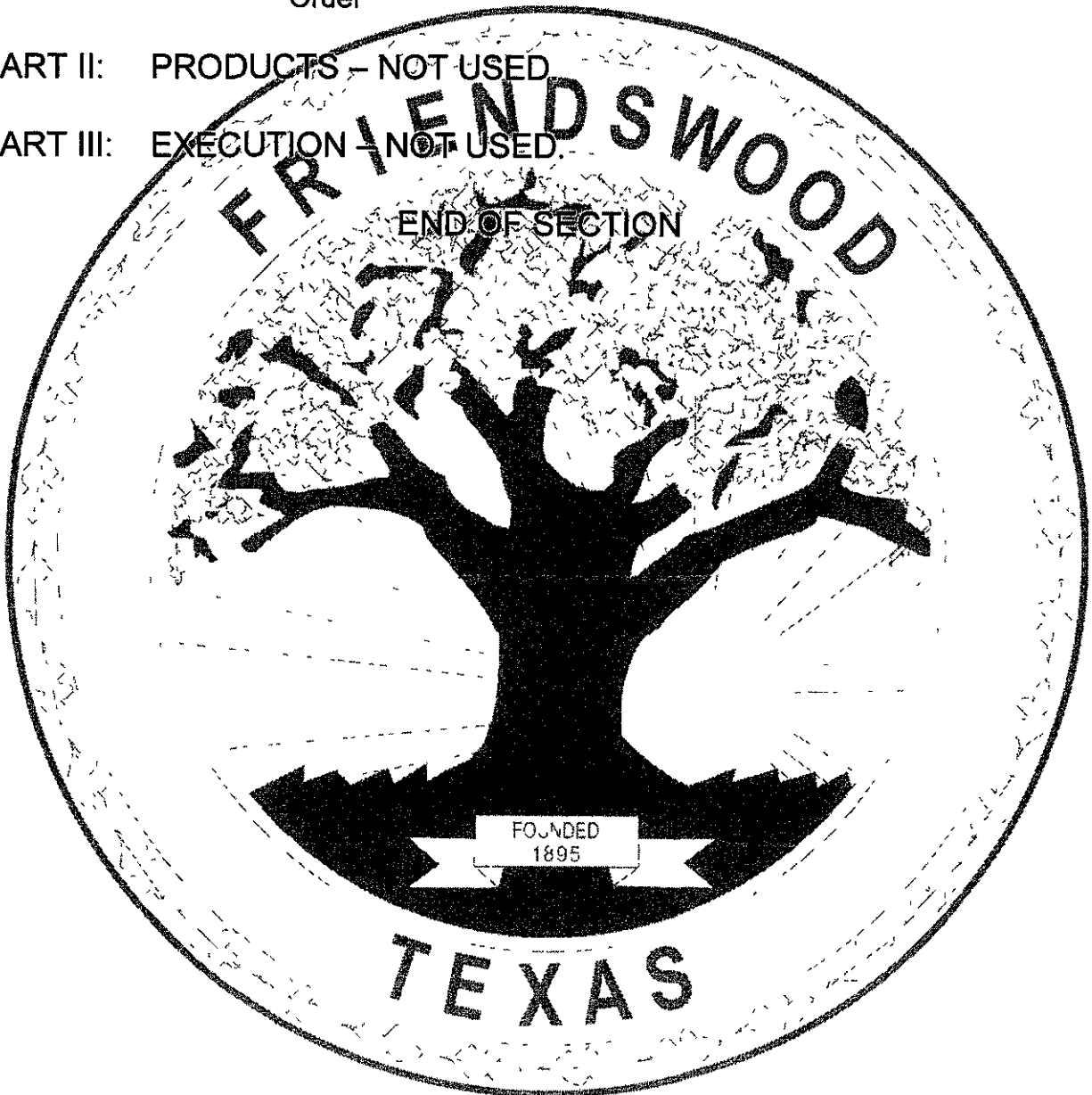
1. If the Contractor agrees that the response will result in no

increase in cost or time, a Minor Change in the Work will be issued by the Project Manager

- 2 If the Contractor and the Project Manager agree that an increase in time or cost is warranted, the Project Manager will forward the Request for Proposal for negotiation of a Change Order

PART II: PRODUCTS – NOT USED

PART III: EXECUTION – NOT USED



SECTION 01340

SHOP DRAWINGS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Methods, schedules and processes to be followed for Shop Drawings, Product Data and Sample submittals.

1.2 REQUIREMENT

- A. Submit Shop Drawings, Product Data and Samples as required by Section 00500 – General Conditions and Technical Specifications using Section 01330 – Submittal Procedures and the requirements of this Section.
- B. Shop Drawings, Product Data and Samples are not considered Contract Documents.
- C. Request clarification from the Project manager before proceeding should specified reference standards conflict with the Contract Documents.

1.3 SHOP DRAWINGS/SUBMITTAL SCHEDULE

- A. Submit a separate Shop Drawing submittal schedule at the same time the Construction Schedule is submitted. List Products for which Shop Drawings and other submittals are required in the order they appear in the Technical Specifications. Include Product Data and Sample submittals in the schedule. Payment Applications shall not be processed until the Project Manager has approved the Shop Drawing submittal schedule.

1.4 SHOP DRAWINGS

- A. Submit a minimum of three (3) sets of Shop Drawings and Product Data. Review and sign Shop Drawings indicating compliance with the Contract Documents and Technical Specifications.
- B. Place the Contractor's Stamp on each drawing as described in Section 01330 – Submittal Procedures
- C. Show the following accurately and distinctly

- 1 Field and erection dimensions;
- 2 Arrangement and section views,
- 3 Relation to adjacent materials or structures, including complete information for making connections between the Work and work under other contracts,

4 Types of Products and finishes;

5 Parts lists and descriptions;

6 Assembly drawings of equipment components and accessories showing respective positions and relationships to the complete equipment package;

7 Identify details by referencing drawing sheet and detail numbers, schedule or room numbers as shown on the Drawings, where necessary for clarity.

D. Scale drawings to provide a true representation of the specific equipment or item furnished.

E. Coordinate and submit components necessary for the Project Manager to adequately review submittal as a complete package. Reproduction of the Drawings for use in Shop Drawings shall not be allowed.

F. For major changes to the original documents, submit Computer-Aided Design (CAD) drawings on a media acceptable to the Project Manager.

1.5 PRODUCT DATA

A. Submit Product Data for review as required by the Technical Specifications.

B. Place the Contractor's Stamp on each drawing as described in Section 01330 – Submittal Procedures.

C. Mark each copy to identify applicable Products, Models and Options to be used in the Work. Where required by the Technical Specifications, supplement the manufacturers' standard data to provide information unique to the Work.

D. Give manufacturers, trade name, model or catalog designation and applicable reference standard for Products specified only by reference standards.

E Pre-approved and Pre-qualified Products

- 1 For "pre-approved", "pre-qualified" and "approved" Products named in Section 01610 – Approved Products List, provide an appropriate list designation, as described in Section 01630 – Product Substitution, within thirty days (30 D) after the date on the Notice To Proceed.
- 2 For Products proposed as alternates to "approved" products, provide information required to demonstrate that the proposed Products meet the level of quality and performance criteria of the "approved" product.

1 6 SAMPLES

- A. Submit Samples for review as required by the Technical Specifications. Have Samples reviewed and signed by a Professional Registered by the State of Texas.
- B. Place the Contractor's Stamp on each drawing as described in Section 01330 – Submittal Procedures.
- C. Submit the number of Samples specified in the Technical Specifications; the Project Manager shall retain one (1) sample.
- D. Reviewed Samples that may be used in the Work are identified in the Technical Specifications.

PART II: PRODUCTS – NOT USED.

PART III: EXECUTION – NOT USED.

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1895
END OF SECTION

TEXAS

SECTION 01400

UNIT PRICE DESCRIPTION

PART I: GENERAL

1.1 MEASUREMENT AND PAYMENT

- A. It is the intent of the Contractor that the aggregate amount of the unit prices, times and unit of work actually installed, shall cover all work required by the Contract Documents, in place, complete, and ready for use.
- B. Prices in the Contract Documents include all compensation for full completion of all work items in place, including providing all labor, materials, tools, equipment, services, supplies, incidental, and all necessary operations.
- C. Work considered incidentals to the various pay items are as follows. No separate payment for this work will be made.
1. Delivery, Storage and Handling
 2. Work to protect items to remain by installation of temporary construction, including posting of warning signs, placement of protective fencing, barriers, barricades and covers, and restoration of damaged items to remain.
 3. Work necessary to haul materials from original positions to points of disposition, including excavation of earth materials and utilization in construction or other disposition.
 4. Work necessary to provide proper drainage during construction, including maintaining sections, existing ditches, channels, culverts, and sewers and including temporary construction and maintenance of ditches and drainage ways.
 5. Clearing and Grubbing the removal and disposal of all above and below ground obstructions within the construction area.
 6. Any work required to provide tree protection, maintenance and evaluation. Tree protection applies to all work items in the proposal.
 7. All work associated with coordination of adjustment and locations of existing private utilities.

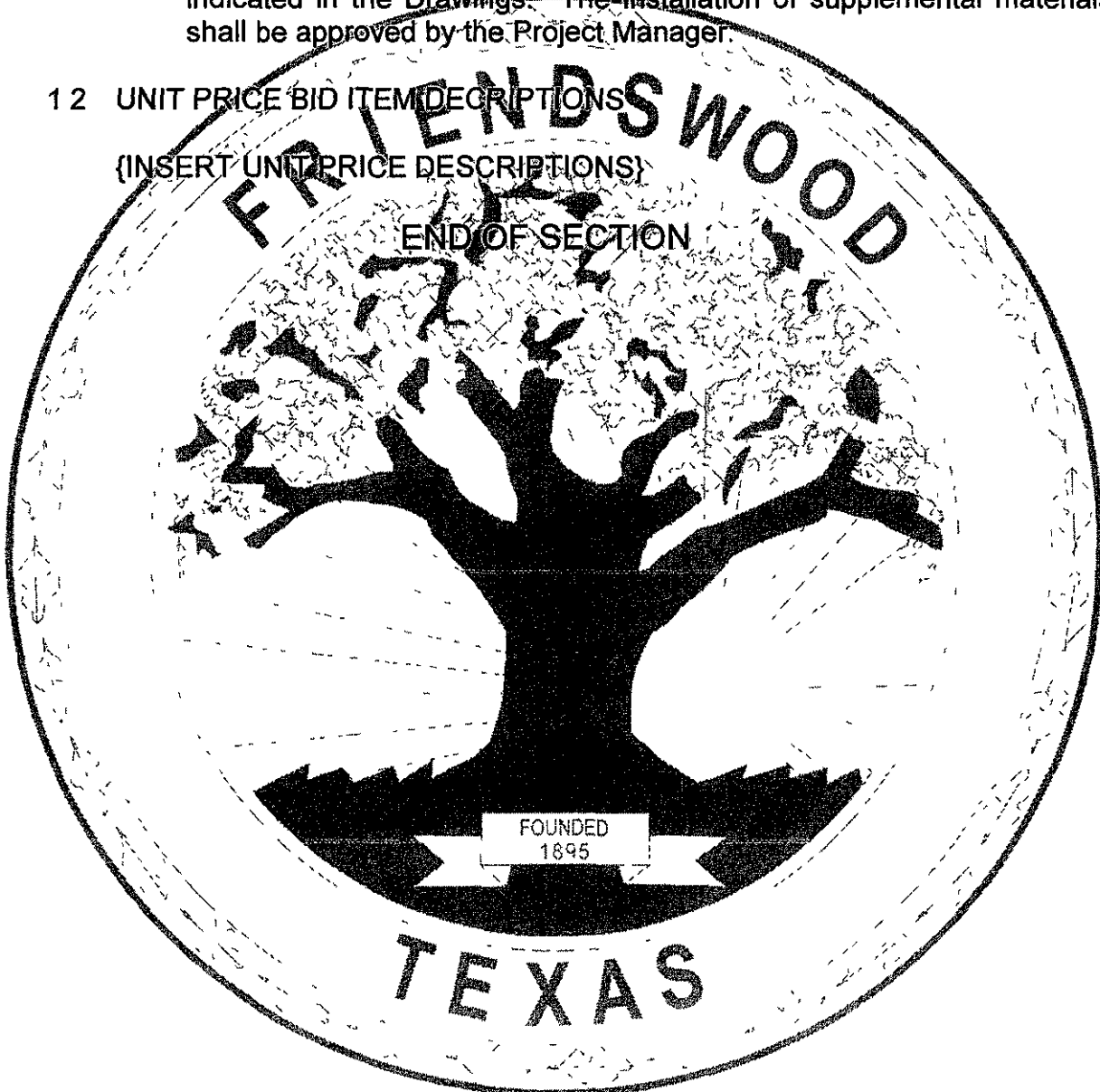
8 All traffic control and devices needed to assure proper traffic control

D. Method of measurement and basis of payment for unit price work items shall be as stipulated in following paragraphs. "Supplemental materials" are to be used for material installed at locations other than indicated in the Drawings. The installation of supplemental materials shall be approved by the Project Manager.

12 UNIT PRICE BID ITEM DESCRIPTIONS

(INSERT UNIT PRICE DESCRIPTIONS)

END OF SECTION



SECTION 01420

REFERENCE STANDARDS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. General quality assurance as related to Reference Standards and a list of references.

1.2 QUALITY ASSURANCE

- A. For products or workmanship specified by association, trade or Federal Standards, comply with requirement of the standard, except when more rigid requirements are specified or are required by applicable code.
- B. Conform to reference standard by date of issue current on the date as stated in the General Conditions.
- C. Request clarification from the Project manager before proceeding should specified reference standards conflict with the Contract Documents.

1.3 SCHEDULE OF REFERENCES

AASHTO American Society of State Highway and Transportation
Officials
444 North Capitol Street NW, Suite 249
Washington, DC 20001-1512
TEL: (202) 624-5800
FAX: (202) 624-5806
WEB: www.transportation.org

ACI American Concrete Institute
38800 Country Club Drive
Farmington Hills, MI 48331-34396
TEL: (248) 848-3700
FAX: (248) 848-3701
WEB: www.concrete.org

AGC Associated General Contractors of America
2300 Wilson Boulevard, Suite 400
Alexandria, VA 22201-5426
TEL: (703) 548-3118
FAX: (703) 548-3119
WEB: www.acg.org

AI Asphalt Institute
2696 Research Park Drive
P. O. Box 14052
Lexington, KY 40511-8480
TEL: (859) 288-4960
FAX: (859) 288-4999
WEB: www.asphaltinstitute.org

AITC American Institute of Timber Construction
7012 S. Revere Parkway, Suite 140
Englewood, CA 90112-6769
TEL: (303) 792-9559
FAX: (303) 792-0669
WEB: www.aitc-glulam.org

AISC American Institute of Steel Construction
One East Wacker Drive, Suite 700
Chicago, IL 60601-1802
TEL: (312) 670-2400
FAX: (312) 670-5403
WEB: www.aisc.org

AISI American Iron and Steel Institute
1140 Connecticut Avenue NW, Suite 705
Washington, DC 20006-4011
TEL: (202) 452-7100
WEB: www.steel.org

ASME American Society of Mechanical Engineers
Three Park Avenue
New York, NY 10016-5990
TEL: (973) 882-1170
FAX: (973) 882-1717
WEB: www.asme.org

ANSI American National Standards Institute
1819 L Street NW
Sixth Floor
Washington, DC 20036-3807
TEL: (202) 293-8020
FAX: (202) 293-9287
WEB: www.ansi.org

APA American Plywood Association
7011 S 19th Street
Tacoma, WA 98466-5338
TEL: (253) 620-7400
FAX: (253) 565-7265
WEB: www.apawood.org

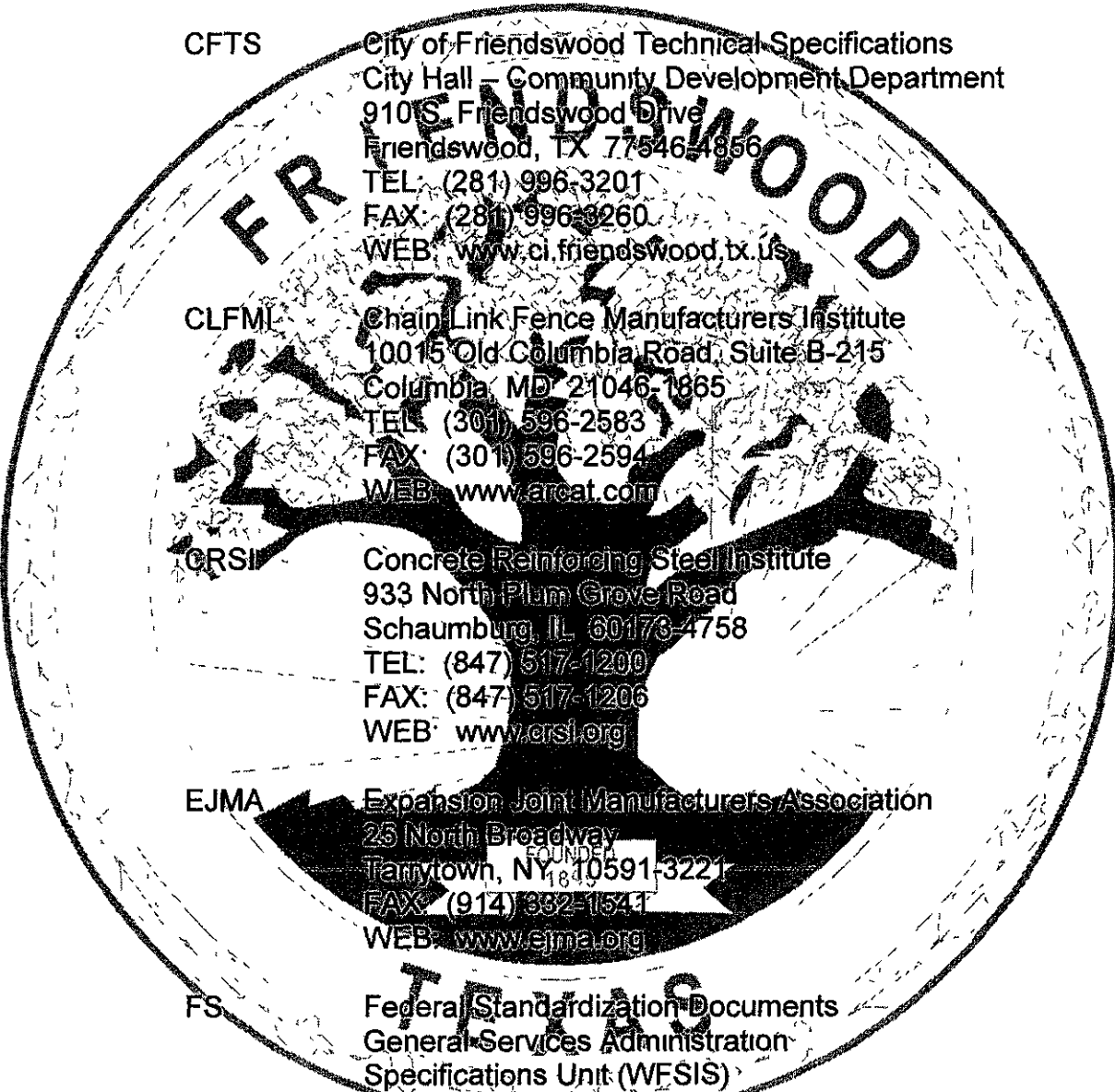
API American Petroleum Institute
1220 L Street, NW
Washington, DC 20005-4070
TEL: (202) 682-8000
WEB: www.api.org

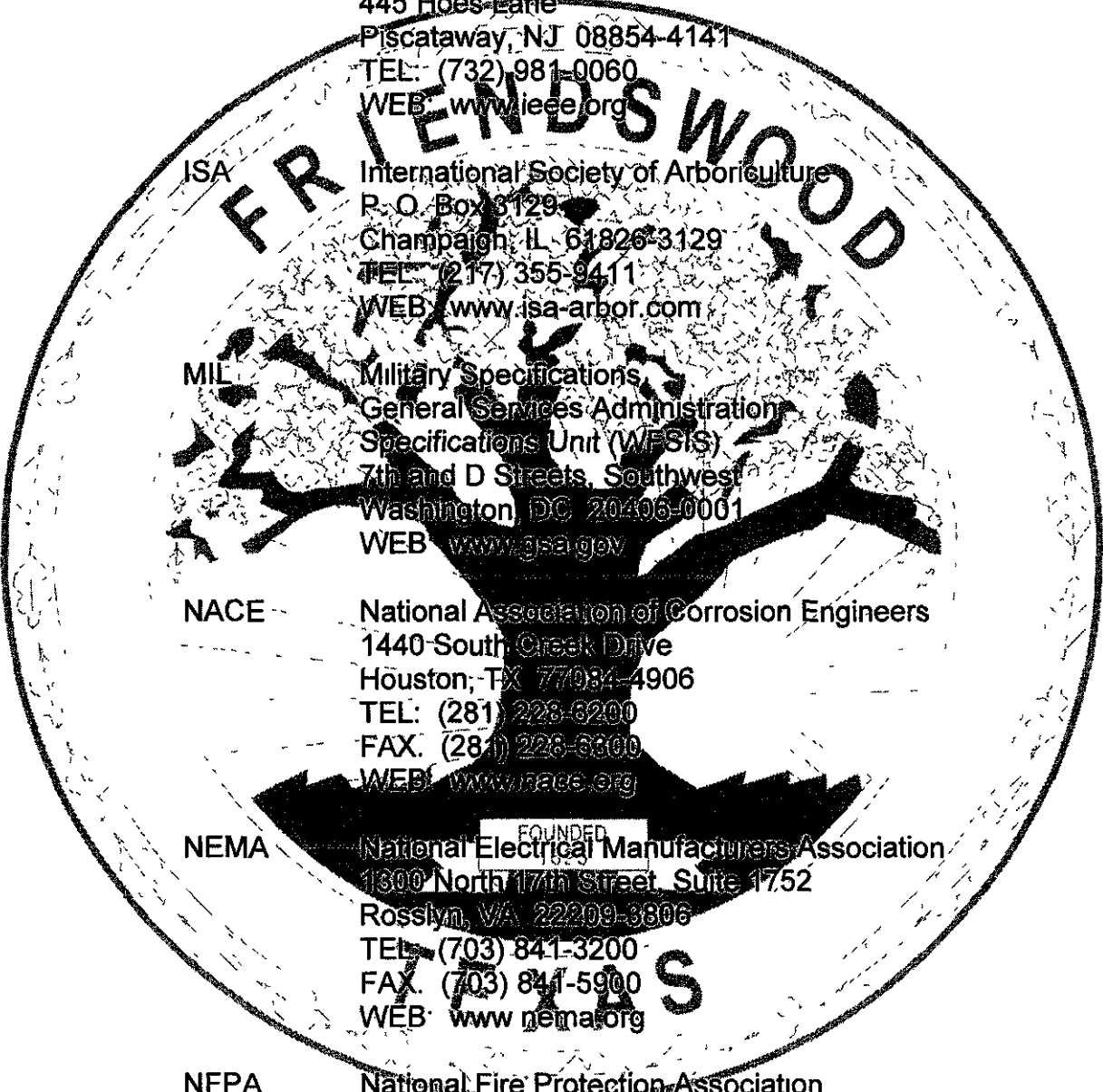
AREMA American Railway Engineering and Maintenance-of-Way Association
10003 Darkwood Lane, Suite 210
Lanham, MD 20706-4875
TEL: (301) 459-3200
FAX: (301) 459-8077
WEB: www.arena.org

ASTM American Society for Testing and Materials
100 Barr Harbor Drive
West Conshohocken, PA 19428-2959
TEL: (610) 832-9500
WEB: www.astm.org

AWPA American Wood Protection Association
P.O. Box 361784
Birmingham, AL 35286-1784
TEL: (205) 733-4077
FAX: (205) 733-4075
WEB: www.awpa.com

AWS American Welding Society
550 NW LeJeune Road
Miami, FL 33126-5649
TEL: (305) 443-9353
WEB: www.aws.org

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- AWWA** American Water Works Association
6666 W Quincy Avenue
Denver, CO 80235-3098
TEL: (303) 794-7711
FAX: (303) 794-0804
WEB: www.awwa.org
- CFTS** City of Friendswood Technical Specifications
City Hall – Community Development Department
910 S. Friendswood Drive
Friendswood, TX 77546-4856
TEL: (281) 996-3201
FAX: (281) 996-3260
WEB: www.ci.friendswood.tx.us
- CLFM** Chain Link Fence Manufacturers Institute
10015 Old Columbia Road, Suite B-215
Columbia, MD 21046-1865
TEL: (301) 596-2583
FAX: (301) 596-2594
WEB: www.arcat.com
- CRSI** Concrete Reinforcing Steel Institute
933 North Plum Grove Road
Schaumburg, IL 60173-4758
TEL: (847) 517-1200
FAX: (847) 517-1206
WEB: www.crsi.org
- EJMA** Expansion Joint Manufacturers Association
25 North Broadway
Tarrytown, NY 10591-3221
FAX: (914) 332-1541
WEB: www.ejma.org
- FS** Federal Standardization Documents
General Services Administration
Specifications Unit (WFSIS)
7th and D Streets, Southwest
Washington, DC 20406-0001
WEB: www.gsa.gov

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- ICEA** Insulated Cable Engineer Association
P O. Box 1568
Carrollton, GA 30112-0030
TEL. (770) 830-0369
WEB: www.icea.net
- IEEE** Institute of Electrical and Electronics Engineers
445 Hoes Lane
Piscataway, NJ 08854-4141
TEL: (732) 981-0060
WEB: www.ieee.org
- ISA** International Society of Arboriculture
P. O. Box 3129
Champaign, IL 61826-3129
TEL: (217) 355-9411
WEB: www.isa-arbor.com
- MIL** Military Specifications
General Services Administration
Specifications Unit (WFSIS)
7th and D Streets, Southwest
Washington, DC 20406-0001
WEB: www.gsa.gov
- NACE** National Association of Corrosion Engineers
1440 South Creek Drive
Houston, TX 77034-4906
TEL: (281) 223-6200
FAX: (281) 223-6300
WEB: www.nace.org
- NEMA** National Electrical Manufacturers Association
1300 North 17th Street, Suite 1752
Rosslyn, VA 22209-3806
TEL: (703) 841-3200
FAX: (703) 841-5900
WEB: www.nema.org
- NFPA** National Fire Protection Association
1 Batterymarch Park
Quincy, MA 02169-7471
TEL: (617) 770-3000
FAX: (617) 770-0700
WEB: www.nfpa.org

NICET National Institute for Certification in Engineering Technologies
1420 King Street
Alexandria, VA 22314-2794
TEL: (888) 476-4238
WEB: www.nicet.org

OSHA Occupational Safety Health Administration
200 Constitution Avenue, NW
Washington, DC 20210-0001
TEL: (800) 321-6742
WEB: www.osha.gov

PCA Portland Cement Association
5420 Old Orchard Road
Skokie, IL 60077-1053
TEL: (847) 996-6200
FAX: (847) 996-8389
WEB: www.cement.org

PCI Prestressed Concrete Institute
209 W. Jackson Boulevard, Suite 500
Chicago, IL 60606-6938
TEL: (312) 786-0300
WEB: www.pci.org

SDI Steel Deck Institute
P. O. Box 25
Fox River Grove, IL 60021-0025
TEL: (847) 458-4647
FAX: (847) 458-4648
WEB: www.sdi.org

TAC Texas Administrative Code
Secretary of State
P. O. Box 12887
Austin, TX 78711-2887
TEL: (512) 463-0500
WEB: www.sos.state.tx.us

TCEQ Texas Commission on Environmental Quality
P. O. Box 13087
Austin, TX 78711-3087
TEL: (512) 239-1000
WEB: www.tceq.state.tx.us

TxDOT Texas Department of Transportation
125 East 11th Street
Austin, TX 78701-2409
TEL. (512) 305-9500
WEB. www.dot.state.tx.us

UL Underwriters Laboratories, Inc
333 Pfingsten Road
Northbrook, IL 60062-2096
TEL: (847) 272-8800
FAX: (847) 272-8129
WEB: www.ul.com

UNI-BELL UNI-BELL Pipe Association
2711 LBJ Freeway, Suite 1000
Dallas, TX 75234-7354
TEL: (972) 243-3902
FAX: (972) 243-3907
WEB: www.uni-bell.org

PART II. PRODUCTS - NOT USED.

PART III: EXECUTION - NOT USED.

END OF SECTION

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**FRIENDSWOOD
TEXAS**

SECTION 01430

PROJECT SIGNAGE

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Requirements for furnishing, fabricating and installing non-reflectorized plywood project signs.
- B. Requirements for furnishing, fabricating and installing various interior and exterior aluminum and plastic signs.
- C. Installation of aluminum reflectorized street signage.
- D. Commemorative Plaques.

1.2 PAYMENT AND MEASUREMENT

A. Unit Prices:

1. Payment for Project Signs shall be per each sign, which shall be full compensation for sign blanks, fabrication of the sign, signposts, all mounting hardware, washing, cleaning, repairing, all incidentals needed to furnish, fabricate and erect sign, and removal of the sign.
2. Payment for storage in buildings shall be on an allowance basis.
3. Refer to Section 01270 - Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum)

1. If Contract is Stipulated Price Contract, payment for Work in this Section is included in Total Stipulated Price.

1.3 REFERENCES

A APA – The Engineered Wood Association.

B ASTM – American Society for Testing and Materials.

1. ASTM A 153 – Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
2. ASTM A 307 – Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength.
3. ASTM B 209 – Standard Specification for Aluminum and Aluminum Alloy Sheet and Plate.
4. ASTM B 449 – Standard Specification for Chromates on Aluminum.
5. ASTM B 695 – Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel.
6. ASTM D 4956 – Standard Specification for Retroreflective Sheeting for Traffic Control.

C. Canadian Council of Forest Industries (COFI).

D. CFTS – City of Friendswood Technical Specifications.

1. Section 01270 – Measurement and Payment.
2. Section 01330 – Submittal Procedures.
3. Section 02865 – Traffic Signs.
4. Section 03300 – Structural Concrete.

E. TxDOT – Texas Department of Transportation.

1. Compliant Work Zone Traffic Control Devices (CWZTCD), latest edition
2. Department of Materials Specification DMS-7100 Plywood Sign Blanks

- 3 Department of Materials Specification DMS-7110 Aluminum Sign Blanks.
4. Department of Materials Specification DMS-8300 Sign Face Materials
- 5 Standard Specifications for Construction of Highways, Streets and Bridges Item 634 – Plywood signs (Type A)
- 6 Standard Specifications for Construction of Highways, Streets and Bridges Item 636 – Aluminum Signs (Type A).
7. Texas Manual on Uniform Traffic Control Devices (TMUTCD), Latest Edition.

F. U.S. Product Standards PS – 1

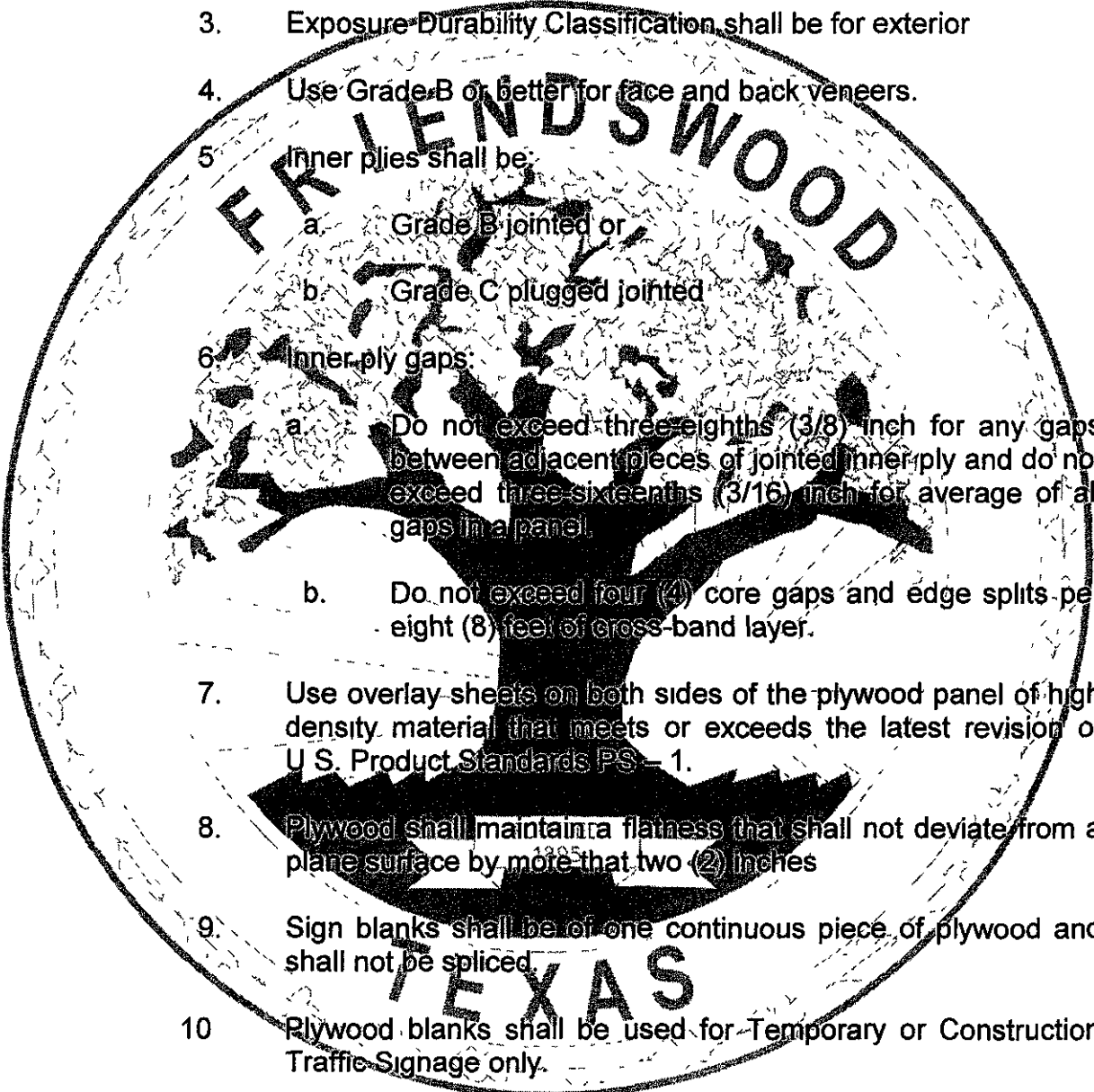
1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.
- B. Submit manufacturers' product data for following items for approval for each type of signage specified in this Section.
- C. Submit shop drawings and proofs for Interior and Exterior signage and Commemorative Plaque.
- D. Submit manufacturer's certification that all signage meets requirements in this Specification.

PART II: PRODUCTS

2.1 PLYWOOD SIGN BLANKS

- A. Plywood signs shall conform to Item 634 of the "Texas Department of Transportation Standard Specifications for Construction of Highways, Streets and Bridges" ("TxDOT") and TxDOT Department of Materials Specification DMS-7100.
- B Plywood blanks shall be five-eighths (5/8) inch thick. Plywood shall be smooth, weather-resistant, of one (1) piece construction and free of scarf or finger joints
- C Plywood shall bear legible grade markings of APA – The Engineered Wood Association or the Canadian Council of Forest Industries (COFI) and shall meet the following requirements

- 
- 1 Use plywood that is natural in color or the color approved by the Project Manager.
 - 2 Classification of Species shall be a group one (1) species classification.
 3. Exposure-Durability Classification shall be for exterior
 4. Use Grade B or better for face and back veneers.
 5. Inner plies shall be:
 - a. Grade B jointed or
 - b. Grade C plugged jointed
 6. Inner ply gaps:
 - a. Do not exceed three-eighths (3/8) inch for any gaps between adjacent pieces of jointed inner ply and do not exceed three-sixteenths (3/16) inch for average of all gaps in a panel.
 - b. Do not exceed four (4) core gaps and edge splits per eight (8) feet of cross-band layer.
 7. Use overlay sheets on both sides of the plywood panel of high density material that meets or exceeds the latest revision of U.S. Product Standards PS-1.
 8. Plywood shall maintain a flatness that shall not deviate from a plane surface by more than two (2) inches
 9. Sign blanks shall be of one continuous piece of plywood and shall not be spliced.
 - 10 Plywood blanks shall be used for Temporary or Construction Traffic Signage only.

2.2 ALUMINUM SIGN BLANKS

- A Aluminum sheet or coil sign blanks shall meet all requirements of TxDOT Standards Specification Item 635, TxDOT DMS-7110 Aluminum Sign Blanks and ASTM B 209, Alloys 6061-T-6 or 5052-H38

- B Sign blanks made from sheet or coil shall be free of buckles, warps, dents, cockles, burrs and other defects and must be a plane surface. Sign blank thickness shall be eight-hundredths (0.08) inch.
- C Treat all sign blanks fabricated from sheet and coil with a chromate chemical process resulting in a coating meeting the requirements of ASTM B 449, Class 2. The coating shall be light colored, tight and free from powdery residues.
- D. Manufacturer shall furnish mill test reports for aluminum sheet or coil which reflect the chemical and physical properties of the aluminum.

2.3 SIGN MOUNTING HARDWARE AND ADHESIVES

- A. All material for sign posts and mounting hardware shall be galvanized steel and be in compliance with ASTM A307, ASTM A153 and ASTM B695.
- B Sign posts shall be galvanized steel two and three eighths (2-3/8) inch outside diameter.
- C. Sign Post mounting shall be "Pos-Lok" or equal system consisting of sixteen (16) inch sleeve and removable wedge.
- D. Pipe and post clamp castings and miscellaneous fasteners shall be verified by manufacturer's certifications stating that the material meets all applicable requirements.
- E Interior signage shall either use fasteners or bond adhesive to fasten sign to the wall.
- F Exterior signage and plaques shall have studs on back of signage and use either cement or bonding agent.

2.4 FACE MATERIALS

- A All materials are to be certified by lot or shipment that material supplied meets requirements listed in this Specifications. Material shall also comply with ASTM D4956 and TxDOT DMS-8300.
- B Sign face materials shall be processed, applied and stored according to the manufacturer's recommendations. Sign face materials shall perform for a minimum of ten (10) years.
- C. The Project Manager shall reject any sign and/or face material for the following reasons:

1. Cracks discernible with the unaided eye from the driver's position while in an outside lane at a distance of fifty (50) feet or greater from the sign;
2. Peeling in excess of one-quarter (1/4) inch,
3. Shrinkage in excess of one-eighth (1/8) inch total per forty-eight (48) inches of sheeting width
4. Fading or loss of color to the extent that color fails to meet the requirements of ASTM D 4956 or TxDOT DMS 8300;
5. In non-construction zone — loss of reflectivity to a level eighty (80) percent of the minimum values as specified in ASTM D 4956;
6. In construction zone — loss of reflectivity to a level sixty (60) percent of the minimum values as specified in ASTM D 4956; or
7. Consist of pressure activated material of diamond or prismatic vinyl

D Any sign face that does not conform to this Section shall be rejected, and the Contractor shall replace it with no additional cost to the City.

2.5 INTERIOR BUILDING SIGNAGE

- A All interior signs shall be made of intergraded photo-etched plastic, with letters either raised or etched. All interior signage shall be ADA compliant and shall include at the bottom of the sign Grade 2 Braille raised one-thirty seconds (1/32) inch.

2.6 EXTERIOR BUILDING SIGNAGE

- A. Raised lettering and numbers on the exterior of buildings shall be of the type and size shown in the Drawings, and approved by the Project Manager.
- B. Acceptable sign materials shall be one (1) of the following
1. Anodized Aluminum, satin finish
 - a. Color shall be either clear satin or;

- b. Medium Bronze or,
- c. Dark Bronze
- 2. Bronze finish

- a. Color shall be either natural satin or,

- b. Oxidized Bronze or,

- c. Dark Oxidized

- 3. Plastic or Acrylic

- a. Color shall compliment the building finish and to be selected by the City.

2.7 PROJECT SIGN

A. Projects signs shall use materials as stated in paragraphs 2.1 and 2.4. Signs using non-reflective facing shall be in conformance with the City's Sign Ordinance. Sign post shall be painted non-reflective white.

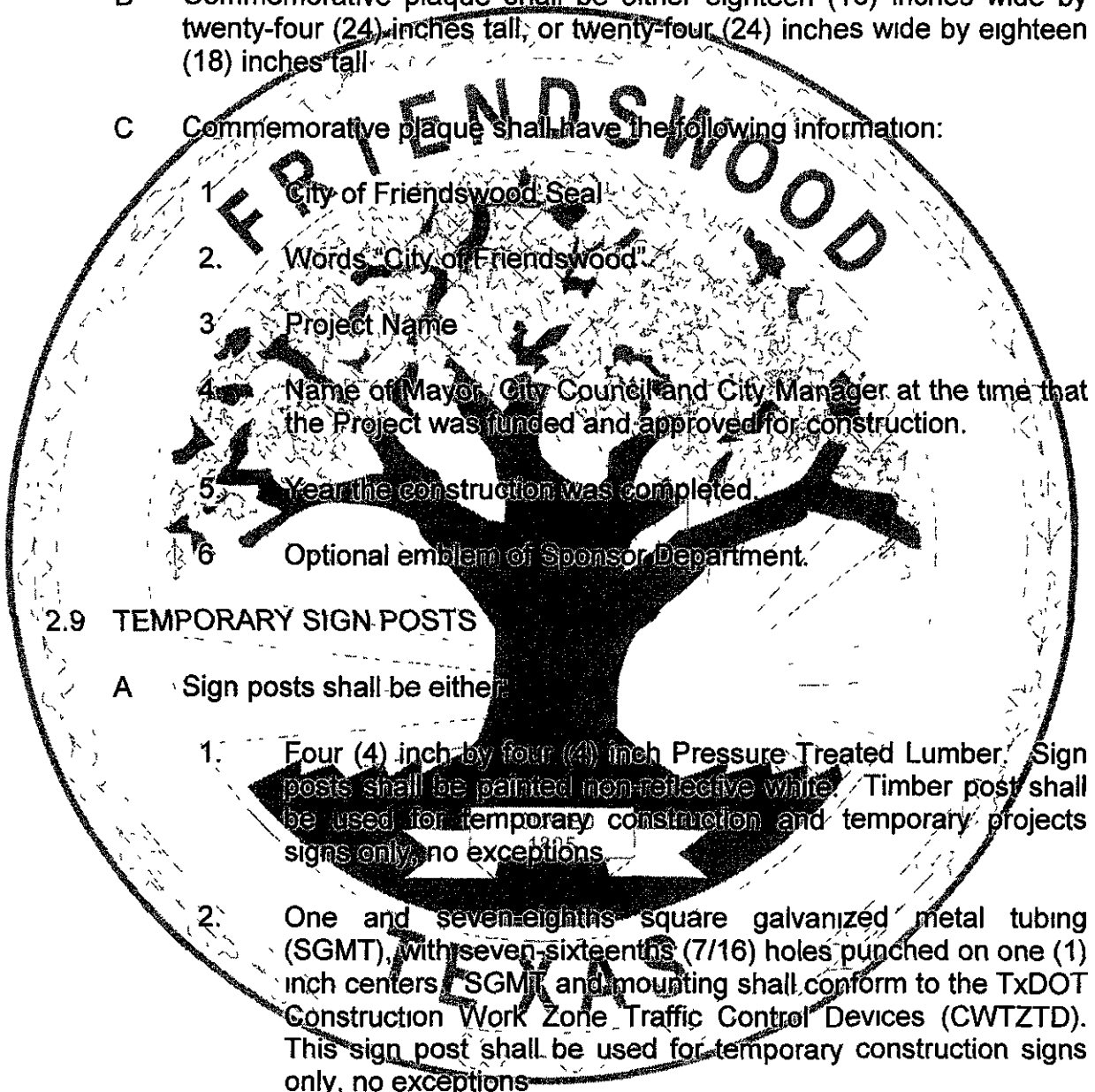
B. Project sign shall have the following information:

- 1. City of Friendswood Seal
- 2. Words "City of Friendswood"
- 3. Project Name
- 4. Design Professional Name and address
- 5. Contractor Name, address and phone number
- 6. Name of Mayor, City Council and City Manager
- 7. City contact information

C. Proof shall be approved by the Project Manager before sign is made. If the Contractor has the sign made without the approval of the Project Manager, the Contractor shall replace at no additional cost to the City. See Figure 4.1 of this Section for typical project sign.

2.8 COMMEMORATIVE PLAQUE

- A. Commemorative plaques shall be made of either brass or bronze. Finish shall be either dark oxidized or light oxidized. Lettering shall have satin finish.
- B. Commemorative plaque shall be either eighteen (18) inches wide by twenty-four (24) inches tall, or twenty-four (24) inches wide by eighteen (18) inches tall.
- C. Commemorative plaque shall have the following information:



2.9 TEMPORARY SIGN POSTS

- A. Sign posts shall be either:
 - 1. Four (4) inch by four (4) inch Pressure Treated Lumber. Sign posts shall be painted non-reflective white. Timber post shall be used for temporary construction and temporary projects signs only, no exceptions.
 - 2. One and seven-eighths square galvanized metal tubing (SGMT), with seven-sixteenths (7/16) holes punched on one (1) inch centers. SGMT and mounting shall conform to the TxDOT Construction Work Zone Traffic Control Devices (CWTZTD). This sign post shall be used for temporary construction signs only, no exceptions.
- B. Posts shall be installed as specified in Paragraph 3.2.A.2.a or other method approved by the Project Manager.

PART III: EXECUTION

3.1 GENERAL

- A. Installation of signs shall be in compliance with current City of Friendswood Sign Ordinance.
- B. All signs shall be installed at the locations directed by the Project Manager.

3.2 TRAFFIC SIGNS

- A. All traffic signs, whether permanent or temporary, and their installation shall be accordance with the latest edition of the "Texas Manual on Construction Traffic Control Devices" (TMUTCD), "Construction Work Zone Traffic Control Devices" (CWZTCD) and Section 02865 - Traffic Signs.

1. Permanent Signs

- a. Permanent traffic sign posts mounting device shall be set a minimum of two (2) foot - six (6) inches in depth in a twelve (12) inch diameter hole filled with Class C concrete as specified in Section 03300 - Structural Concrete to within three (3) inches below finished grade.
- b. Mounting wedge shall extend two (2) inches above natural grade.
- c. Bottom of sign shall be a minimum of seven (7) feet above natural or finished grade or above top of curb/edge of pavement, whichever is higher.
- d. Side of sign closest to traffic shall be a minimum of two (2) feet from either back of curb or edge of pavement.

2. Temporary Traffic Sign

- a. Temporary construction posts shall be set a minimum of three (3) feet in depth in a twelve (12) inch diameter hole filled with either sand or natural ground which shall be compacted to ninety-five (95) percent density.
- b. Bottom of sign shall be a minimum of seven (7) feet above natural or finished grade or above top of

curb/edge of pavement, whichever is higher

- c Side of sign closest to traffic shall be a minimum of two (2) feet from either back of curb or edge of pavement
- d Signs shall be maintained, cleaned and repaired as needed during the construction of the project
- e Signs shall be permitted and installed on the right-of-way where designated by the Project Manager or Traffic Control Plan.
- f The signs shall become the property of the Contractor and shall be removed at the completion of the project

3.3 PROJECT SIGN

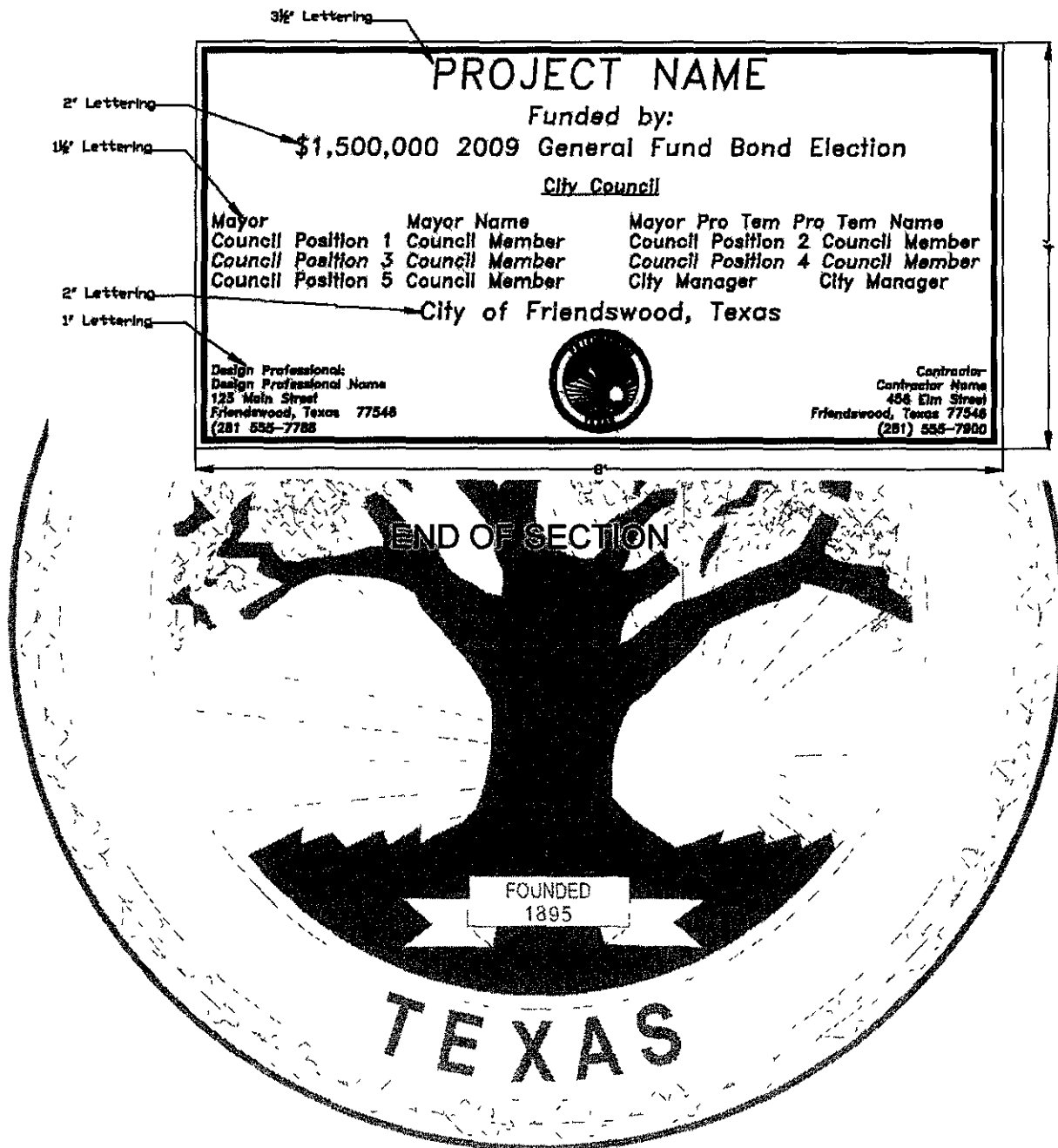
- A project sign posts shall be set a minimum of three (3) feet in depth in a twelve (12) inch diameter hole filled with either sand or natural ground which shall be compacted to ninety-five (95) percent density
- B. Project signs shall be mounted so that the top of the sign does not exceed eight (8) feet above natural ground.
- C. There shall be two (2) signs for street, drainage and utility improvements or one (1) sign for public facility projects.
- D Signs shall be maintained, cleaned and repaired as needed during the construction of the project.
- E. Signs shall be permitted and installed on the right-of-way or the project site where designated by the Project Manager or Traffic Control Plan.
- F The signs shall become the property of the Contractor and shall be removed at the completion of the project.

3.4 INTERIOR AND EXTERIOR SIGNS AND COMMEMORATIVE PLAQUE.

- A. Interior and exterior signs and Commemorative Plaque shall be installed in conformance with all specifications in this Section
- B. All protective coatings or materials shall remain in place until facility is accepted

PART IV: FIGURES

4.1 TYPICAL PROJECT SIGN



SECTION 01450

CONTRACTOR'S QUALITY CONTROL

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Quality assurance and control of installation and manufacturers' field services and reports.

1.2 QUALITY ASSURANCE AND CONTROL OF INSTALLATION

- A. Monitor quality control over Suppliers, Manufacturers, Products, services, site conditions and workmanship, to produce work of specified quality at no additional cost to the City.
- B. Comply fully with manufacturers' installation instructions, including each step in sequence.
- C. Request clarification from the Project Manager before proceeding when manufacturers' instructions conflict with the Contract Documents.
- D. Comply with specified standards as minimum requirements for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform the Work by persons qualified to produce a specified level of workmanship.

1.3 REFERENCES

- A. Obtain copies of standards and maintain at job site when required by individual Technical Specification sections.

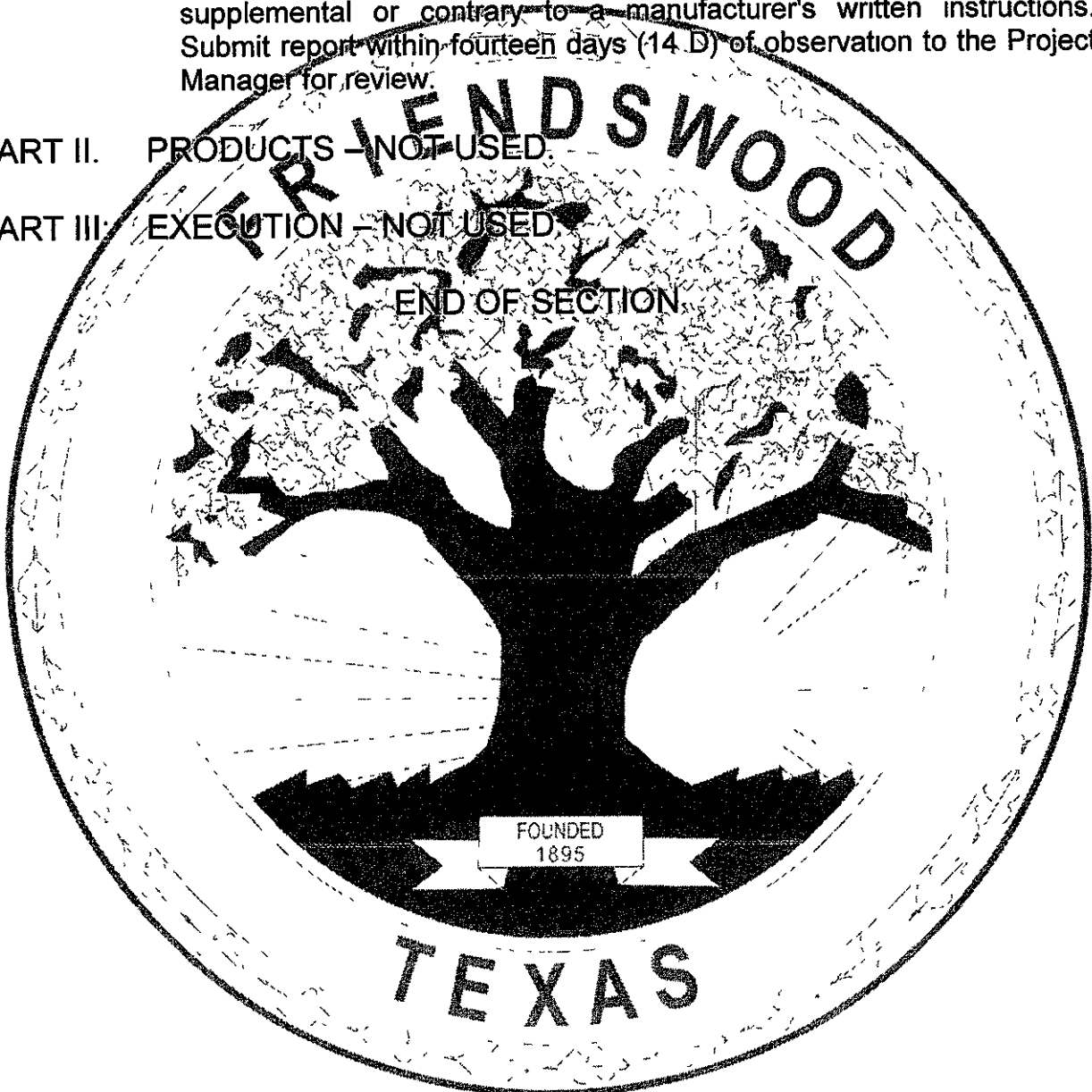
1.4 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. When specified in individual Technical Specification sections, or as required by the Project Manager, provide Product suppliers' or manufacturers' technical representative to observe site conditions, conditions of surfaces and Installation, quality of workmanship, start-up of equipment, operator training, testing, adjusting and balancing of equipment as applicable and to initiate required operation. Conform to minimum time requirements for start-up operations and operator training when provided in Technical Specification sections.

- B. At the Project Manager's request, submit qualifications of manufacturers' representative to the Project Manager fifteen days (15 D) in advance of required representatives' services. Representative is subject to approval by the Project Manager.
- C. Manufacturer's representatives shall report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to a manufacturer's written instructions. Submit report within fourteen days (14 D) of observation to the Project Manager for review.

PART II. PRODUCTS - NOT USED.

PART III. EXECUTION - NOT USED.



SECTION 01455

INSPECTION SERVICES

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Inspection services and references.

1.2 INSPECTION

- A. The Director of Community Development shall appoint a Project Manager to represent the City and perform inspections, tests, and other services specified in individual Technical Specification sections.
- B. The Director of Community Development may also appoint, employ, and pay an independent firm to provide additional inspection or construction management services as indicated in Section 01470 – Testing Laboratory Services.
- C. The independent firm will submit reports to the Project Manager, indicating observations and results of tests and indicating compliance or noncompliance with the Contract requirements.
- D. The Contractor shall assist and cooperate with the Project Manager, furnish samples of materials, design mix, equipment, tools, and storage.
- E. Contractor shall notify the Project Manager a minimum of twenty-four hours (24 Hrs) prior to expected time for operations requiring services.
- F. Contractor shall sign and acknowledge reports for the Project Manager.

PART II: PRODUCTS – NOT USED

PART III: EXECUTION – NOT USED

END OF SECTION

SECTION 01460

OBSERVATION OF CONSTRUCTION

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. This section outlines the duties, responsibilities, and limitations of authority of the project representative in connection with his observation of the work.

1.2 AUTHORITY

- A. The City's Design Professional's Services of the project representative, in assisting the City's Design Professional, are set forth in Section 00500 - General Conditions. In particular, the definition of the City's Design Professional's duties provides authority for observation of the work.
- B. Special Testing - The Project Representative's authority to require special observation or testing in connection with rejected work is also provided in Section 00500 - General Conditions. Furthermore, the provision that, upon request by the Contractor, the Project Representative observe and accept or reject any material furnished is also granted in the Section 00500 - General Conditions.
- C. Removing Work - The provision for removing work for observation by the Project Representative is granted in the Section 00500 - General Conditions.

PART II: DEFINITIONS

2.1 PROJECT REPRESENTATIVE

- A. The Project Manager shall be the project representative of the City. If an independent individual so named is the City's Design Professional, the City's Design Professional's project representative will be assigned such authority, but shall not override the authority of the City's Project Manager.

2.2 NORMAL WORKING DAYS

- A. Normal working days for project representatives are defined as Monday through Friday, exclusive of holidays and between the hours of seven

(7) A M to eight (8) P.M. If the Contractor plans work on a Saturday, Sunday or legal holiday, work arrangements shall be made for a project representative a minimum of forty-eight hours (48 Hrs) before the last normal working day before the Saturday, Sunday, or legal holiday

- B Non-normal work shall be subject to the specifications listed in Section 01140 – Work Restrictions, Paragraph 1 13.

2 3 UNINSPECTED WORK

- A The Project Manager shall request that the Contractor remove or replace any work completed that was not observed by the project representative or the Project Manager. Removal or replacement will be completed at no additional cost to the City.

PART III: PROJECT REPRESENTATIVE

3.1 TRANSLATION

- A Assist the Contractor's superintendent in understanding the intent of the Technical Specifications and the Construction Plans.

3.2 SPOT CHECKS

- A. Conduct on-site observations and spot checks of the work in progress as a basis for determining conformance of work, materials, and equipment with the Technical Specifications and the Construction Drawings.

3.3 CONSIDERATION

- A Consider and evaluate suggestions or recommendations which may be submitted by the Contractor to the Project Manager and report them with recommendations to the Project Manager for final decision

3.4 SCHEDULING

- A Be alert to the construction schedule and to conditions which may cause delay in completion, and report same to the Project Manager.

3.5 LIAISON

- A Maintain liaison with the Contractor and all subcontractors on the project only through the Contractor's superintendent.

3.6 PARTICIPATION

- A Attend conferences held at the project site as directed by the Project Manager. Report to the Project Manager the results of such meetings

3.7 ADVISING

- A Advise the Project Manager in advance of the schedules of tests and observe that tests at the project site, which are required, by the Technical Specifications and Construction Drawings are actually conducted. Observe, record and report to the Project Manager all details relative to the test procedures.

3.8 ACCOMPANYING OTHERS

- A Accompany anyone representing local, state or federal agencies having jurisdiction, on site visits of the project. Record and report to the Project Manager the results of these site visits.

3.9 RECEIVING

- A. Receive samples which are required to be furnished at the site; record date received and from whom, and notify the Project Manager of their readiness for examination; record the Project Manager's approval or rejection; and maintain custody of approved samples.

3.10 REVIEWING

- A. Review applications for payment submitted by the Contractor and forward them with recommendations regarding payment and progress to the Project Manager.

3.11 CHECKING

- A After substantial completion, check each incomplete or defective item as it is corrected.

3.12 REPORTING

- A If a situation arises during construction, which requires that work be rejected, report such situation immediately to the Project Manager

3.13 LIMITATIONS

- A The project representative shall not
 - 1 Authorize deviations from the Contract Documents,
 - 2 Personally conduct any test;

- 3 Enter into the area of responsibility of the Contractor's superintendent,
- 4 Expedite the work for the Contractor,
- 5 Advise on, or issue directions relative to any aspect of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the work;
- 6 Authorize or suggest that the City occupy the project, in whole or in part, prior to substantial completion;
7. Issue a recommendation for payment;
8. Exceed limitations of the City's Design Professional's authority as set forth in the Contract Documents; or
9. Accept Shop Drawings or Samples from anyone other than the Contractor

END OF SECTION

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SECTION 01470

TESTING LABORATORY SERVICES

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Testing laboratory services and the Contractor responsibilities related to those services.

1.2 REFERENCES

- A. A2LA – The American Association for Laboratory Accreditation.
- B. ASTM – American Society for Testing and Materials.
 - 1. ASTM C1077 – Standard Practice for Laboratories Testing Concrete and Concrete Aggregates for Use in Construction and Criteria for Laboratory Evaluation.
 - 2. ASTM D3688 – Standard Specification for Minimum Requirements for Agencies Testing and Inspecting Bituminous Paving Materials.
 - 3. ASTM D3740 – Standard Practice for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction.
 - 4. ASTM E329 – Standard Specification for Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction.
- C. CFTS – City of Friendswood Technical Specifications.
 - 1. Section 00020 – List of Pre-qualified Testing Laboratories.
 - 2. Section 00500 – General Conditions.
 - 3. Section 01475 – Quality Control Testing Procedures
- D. ISO/TES – International Organization for Standards
 - 1. ISO/TEC Guide 25 - General Requirements for the

Competence of Calibration and Testing Laboratories.

- E. TxDOT – Texas Department of Transportation.

1.3 SELECTION AND PAYMENT

- A. The City shall select, employ, and pay for services of an Independent Testing Laboratory to perform inspection and testing identified in Part III of individual Technical Specification sections.
- B. The Contractor may employ and pay for services of an independent testing laboratory or laboratories to perform inspection and testing identified in Part II of individual Technical Specification sections.
- C. Employment of a testing laboratory by the City shall not relieve the Contractor of its obligation to perform the Work in accordance with requirements of the Contract Documents.
- D. The City shall deduct a minimum two hour (2 Hr) charge for testing laboratory time from periodic progress payment when operations requiring testing or inspection are canceled without prior notification.
- E. The City shall deduct cost of any necessary retesting, whenever failed work is removed and replaced, from periodic progress payment.

1.4 QUALIFICATION OF LABORATORY

- A. Meet laboratory requirements of ASTM E329 and applicable requirements of ASTM C1077, ASTM D3666, and ASTM D3740.
- B. Meet ISO/IEC Guide 17025 conditions for accreditation by the American Association for Laboratory Accreditation (A2LA) in specific fields of testing required in individual Technical Specification sections.
- C. If laboratory subcontracts are part of the testing services, such work shall be placed with a laboratory complying with the requirements of this Section.
- D. Testing on all projects with public utilities shall be from one (1) or more testing laboratories listed in Section 00020 – List of Pre-Qualified Testing Laboratories.

1.5 LABORATORY REPORTS

- A. Testing laboratory shall provide and distribute copies of laboratory reports to the distribution list the City's Project Manager provides at the

pre-construction conference.

- B. Keep one (1) copy of each laboratory report distributed or faxed at the site field office for duration of the Work. Laboratory shall fax material supplier, the Contractor and the City's Project Manager reports that indicate failing test results by no later than close of business on the working day following test completion and review

1.6 LIMITS ON TESTING LABORATORY AUTHORITY

- A. Laboratory may not release, revoke, alter, or enlarge requirements of the Contract
- B. Laboratory may not approve or accept any portion of the Work.
- C. Laboratory may not assume the Contractor duties
- D. Laboratory has no authority to stop the Work.

1.7 CONTRACTOR RESPONSIBILITIES

- A. Provide safe access to the Work and to manufacturer's facilities for the City's Project Manager and for testing laboratory personnel.
- B. Provide testing laboratory with a copy of the Construction Schedule and a copy of each update to Construction Schedule.
- C. Notify the City's Project Manager and testing laboratory a minimum of twenty-four hours (24 Hrs) previous to expected time for operations requiring inspection and testing services. When the Contractor fails to make timely prior notification, do not proceed with the operations requiring inspection and testing services.
- D. Notify Design Consultant twenty four hours (24 Hrs) in advance when Technical Specification requires presence of Design Consultant for sampling or testing.
- E. Request and monitor testing as required to provide timely results and to avoid delays to the Work. Provide samples to laboratory in sufficient time to allow required test to be performed in accordance with specified test methods before intended use of the Product.
- F. Cooperate with laboratory personnel in collecting samples on site. Provide incidental labor and facilities for safe access to the Work to be tested, to obtain and handle samples at site or at source of Products to be tested, and to facilitate tests and inspections including storage and

curing of test samples

- G Make arrangements with laboratory through the City's Project Manager
Payment for additional testing shall be made in accordance with
Section 00500 – General Conditions.

1. Re-testing required for failed tests
2. Re-testing for nonconforming work.
3. Additional sampling and tests requested beyond specified requirements
4. Insufficient notification of cancellation of scheduled tests of which are not performed.

PART II: PRODUCTS – NOT USED

PART III: EXECUTION

3.1 CONDUCTING TESTING

- A Conform to laboratory sampling and testing methods specified in individual Technical Specification sections to the latest issues of ASTM standards, TxDOT methods, or other recognized test standards as approved by the City's Project Manager
- B. Requirements of this Section shall also apply to those tests for approval of materials, for mix designs, and for quality control of materials as performed by employed testing laboratories.
- C All testing requirements and quantities shall conform to Section 01475 – Quality Control Testing Procedures unless otherwise approved by the Project Manager

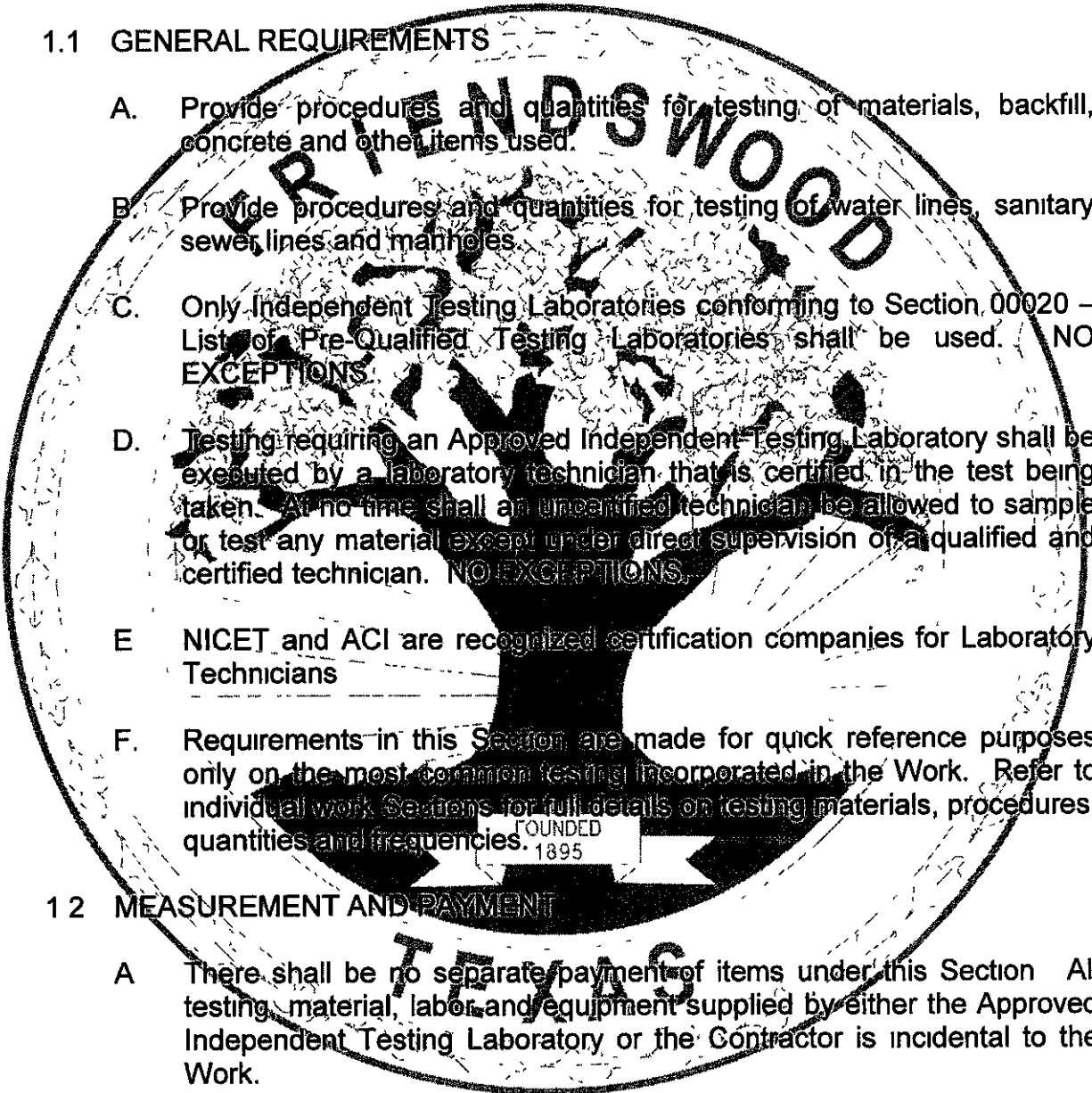
END OF SECTION

SECTION 01475

QUALITY CONTROL TESTING PROCEDURES

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- 
- A. Provide procedures and quantities for testing of materials, backfill, concrete and other items used.
 - B. Provide procedures and quantities for testing of water lines, sanitary sewer lines and manholes.
 - C. Only Independent Testing Laboratories conforming to Section 00020 – List of Pre-Qualified Testing Laboratories shall be used. **NO EXCEPTIONS.**
 - D. Testing requiring an Approved Independent Testing Laboratory shall be executed by a laboratory technician that is certified in the test being taken. At no time shall an uncertified technician be allowed to sample or test any material **except under direct supervision of a qualified and certified technician. NO EXCEPTIONS.**
 - E. NICET and ACI are recognized certification companies for Laboratory Technicians
 - F. Requirements in this Section are made for quick reference purposes only on the most common testing incorporated in the Work. Refer to individual work Sections for full details on testing materials, procedures, quantities and frequencies.

1.2 MEASUREMENT AND PAYMENT

- A. There shall be no separate payment of items under this Section. All testing, material, labor and equipment supplied by either the Approved Independent Testing Laboratory or the Contractor is incidental to the Work.
- B. Contracting with an Independent Testing Laboratory.
 - 1. The City shall contract with an Independent Testing Laboratory for projects funded by public funds. Any retest of failed tests or materials shall be at the Contractor's expense and deducted

from the next progress payment unless Contractor has made financial arrangements with the Independent Testing Laboratory

2. Owners of private development projects, even in the event they are installing public infrastructure, shall contract with an Independent Testing Laboratory. The Independent Testing Laboratory shall not have any affiliation with the Owners, Contractors, Engineers or Architects on the project and shall be qualified as per Section 01470 – Testing Laboratory Services

1.3 OBSERVATION

- A. The City's Project Manager shall be onsite for all testing procedures for the duration of the test and observe all procedures and document the adherence to the testing procedures as stated in this Section
- B. The City's Project Manager shall be copied on all testing reports issued by the Independent Testing Laboratory

1.4 REFERENCES

ASTM – American Society for Testing and Materials
CFSD – City of Friendswood Standard Details
CFTS – City of Friendswood Technical Specifications.
TCEQ – Texas Commission on Environmental Quality
TDSHS – Texas Department of State Health Services
TxDOT – Texas Department of Transportation

A. BACKFILL TESTING

1. ASTM C33 – Standard Specification for Concrete Aggregates (Fine Aggregate).
2. ASTM D558 – Standard Test Methods for Moisture-Density Relations of Soil Cement Mixtures
3. ASTM D698 – Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lb/ft).

4. ASTM D1140 – Standard Test Method for Amount of Material in Sols Finer than No. 200 Sieve

ASTM D1163 – Standard Test Method for Compressive Strength of Molded Soil-Cement Cylinders.

5. ASTM D2216 – Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil, Rock, and Soil Aggregate Mixtures.

6. ASTM D2487 – Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System).

7. ASTM D4318 – Standard Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils.

8. CFTS Section 02110 – Borrow

9. CFTS Section 02120 – Excavation and Backfill for Structures

10. CFTS Section 02125 – Excavation and Backfill for Utilities.

11. CFTS Section 02140 – Utility Backfill Materials.

B. CONCRETE TESTING

1. ASTM C31 – Standard Practice for Making and Curing Concrete Test Specimens in the Field.

2. ASTM C33 – Standard Specification for Concrete Aggregates.

3. ASTM C39 – Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens

4. ASTM C94 – Standard Specification for Ready-Mixed Concrete

5. ASTM C143 – Standard Test Method for Slump of Hydraulic Cement Concrete.

6. ASTM C172 – Standard Practice for Sampling Freshly Mixed Concrete

7. ASTM C173 – Standard Test Method for Air Content of Freshly Mixed Concrete by Volumetric Method

- 8 ASTM C231 – Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
- 9 ASTM C260 – Standard Specification for Air-Entraining Admixtures for Concrete.
- 10 ASTM C498 – Standard Specification for Chemical Admixtures for Concrete
11. ASTM C1064 – Standard Test Method for Temperature of Freshly Mixed Portland Cement Concrete.

12. CFTS Section 03200 – Reinforcing Steel.

13 CFTS Section 03300 – Structural Concrete.

C. DETENTION POND

1 CFTS Section 02900 – Turf Establishment

2 HCFC- Harris County Flood Control.

3 GCCDD – Galveston County Consolidated Drainage District.

D. SANITARY SEWER MANHOLES

1 CFTS Section 02525 – Acceptance Testing for Gravity Sanitary Sewer Lines.

E. SANITARY SEWER FORCE MAINS

1 ASTM F2164 – Standard Practice for Field Leak Testing of Polyethylene (PE) Pressure Piping Systems Using Hydrostatic Pressure.

2 CFTS Section 02450 – Hydrostatic Testing of Waterlines.

3 CFTS Section 02510 – Sanitary Sewer Force Mains

F. SANITARY SEWER GRAVITY LINES

1 ASTM C924 – Standard Practice for Testing Concrete Pipe Sewer Lines by Low-Pressure Air Test Method

2. ASTM D3034 – Standard Specification for Type PSM (Polyethylene (Vinyl Chloride) (PVC) Sewer Pipe and Fittings

3. ASTM F1417 – Standard Test Method for Installation Acceptance of Plastic Gravity Sanitary Sewer Lines Using Low Pressure Air
4. CFTS Section 02525 – Acceptance Testing for Gravity Sanitary Sewer Lines.

G. SUBGRADE

1. ASTM D698 – Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort
2. ASTM D4318 – Standard Test Procedures of Liquid Limit, Plastic Limit and Plasticity Index of Soils
3. CFTS Section 02700 – Cement-Stabilized Base Course.
4. CFTS Section 02720 – Lime-Stabilized Base Subgrade.
5. TxDOT Tex-101-E – Preparing Soils and Flexible Base Materials for Testing
6. TxDOT Tex-140-E – Measuring Thickness of Pavement Layer.
7. TxDOT-Tex-600-J – Sampling and Testing Lime.

H WATER LINES

1. ASTM F2164 – Standard Practice for Field Leak Testing of Polyethylene (PE) Pressure Piping Systems Using Hydrostatic Pressure
2. CFTS Section 02450 – Hydrostatic Testing of Waterlines
3. CFTS Section 02455 – Disinfection of Waterlines

PART II: PRODUCTS

- 2.1 The Contractor is to supply all equipment and labor needed to complete any test listed in this Section. The City's Project Manager is there to observe test and verify compliance of specifications only. The City's Project Manager shall not help or assist in any way.

PART III. EXECUTION

3.1 The Contractor shall notify the City's Project Manager a minimum of forty-eight hours (48 Hrs) in advance of any work which shall require testing. Only the City's Project Manager shall call the Independent Testing Laboratory and schedule their services, no exceptions

3.2 All testing requirements stated in this Section are minimal testing requirements. At the discretion of the City's Project Manager, more testing can be authorized. Additional testing may be requested by the Contractor at no additional cost to the City and with the approval of the City's Project Manager.

3.3 BACKFILL

A Class I, II, and III backfill and Select fill lift placement shall not exceed six inches (6 in) to eight inches (8 in) of loose material. Clumps of material larger than six inches (6 in) in any direction shall not be allowed. Dry Density and Moisture content shall be determined by ASTM D698.

1. Frequency – One (1) test per lift per five hundred linear feet (500 Lf); or fraction thereof if less than five hundred linear feet (500 Lf), of trench or between manholes, whichever is shorter. A minimum of three (3) density tests per lift per day shall be required.

2. Compaction in the ROW – Compaction shall be a minimum of ninety-five percent (95%) of dry density and moisture shall be at optimum plus or minus three percent ($\pm 3\%$).

3. Compaction outside of the ROW – Compaction shall be a minimum of ninety percent (90%) of dry density and moisture shall be at optimum plus or minus three percent ($\pm 3\%$).

B. Bank run sand shall be classified using ASTM D2487. Bank run sand lift placement shall not exceed twelve inches (12 in) of loose material

1. Bank run sand shall have no more than two percent (2%) clay lumps or balls

2. Bank run sand shall have less than fifteen percent (15%) material passing through a No. 200 sieve as determined by ASTM D1140

- 3 Material passing No. 40 and have a Plasticity Index less than seven (7) as determined by ASTM D4318
- C Cement-Stabilized Sand shall be a minimum of one and one tenth (1 1/10) sacks of cement per one ton (1 Tn) of sand. Sand shall meet grading requirements for Fine Aggregates of ASTM C33. Cement-stabilized sand lift placement shall not exceed twelve inches (12 In) of loose material.
 - 1 Sampling of cement-stabilized sand shall be either.
 - a. Three (3) samples taken from the truck, one (1) from each one-third (1/3) of the truck, beginning third (3rd), middle third (3rd) and last third (3rd), or
 - b. One (1) sample shall be taken per one hundred fifty tons (150 Tn) or one (1 pD) production day, whichever is less.
 - 2 Mold four (4) specimens, per sample taken, in accordance with ASTM D558, Method A
 - 3 Compaction shall be a minimum of ninety-five percent (95%) and moisture shall be at optimum plus or minus three percent ($\pm 3\%$), as determined by ASTM D558.
 - 4 Compressive strength of cement-stabilized sand shall be tested in accordance with ASTM D1163.
 - a. Two (2) specimens shall be tested at forty-eight hours (48 Hrs) plus or minus two hours (± 2 Hrs). Compressive strength shall be average of both specimens and shall be no less than one hundred pounds per square inch (100 psi), with no one (1) specimen compressive strength below seventy pounds per square inch (70 psi).
 - b. Two (2) specimens shall be tested at seven days (7 D) plus or minus four hours (± 4 Hrs). Compressive strength shall be average of both specimens and shall be equal to or greater than one hundred pounds per square inch (100 psi), with no one (1) specimen compressive strength below one hundred pounds per square inch (100 psi).

3.4 CONCRETE

A Concrete mix design

1. Each Type of Concrete shall have one (1) mix design and shall be submitted so that the City's Project Manager can send to the Independent Testing Laboratory for review a minimum of seven days (7 D) before start of concrete placement. Concrete mix designs shall conform with requirements of ASTM C94.
2. Concrete Classification shall conform to TABLE 4.1 CONCRETE CLASSIFICATION MINIMUM SPECIFICATIONS in this Section. Coarse aggregate shall conform with ASTM C33 and as specified in TABLE 4.2 COARSE AGGREGATE GRADATION in this Section.
3. Fine aggregate shall conform with ASTM C33 and as specified in TABLE 4.3 FINE AGGREGATE GRADATION in this Section.
4. Mineral filler shall only be added with the approval of the Director of Community Development and shall not exceed fifteen percent (15%) of the fine aggregate weight and conforms to TABLE 4.4 MINERAL FILLERS in this Section.
5. Admixtures shall conform to the following:
 - a. Water reducers shall conform to ASTM C494, type A.
 - b. Water reducing retarders shall conform to ASTM C494, type D.
 - c. High range water reducers (superplasticizers) shall conform to ASTM C494, Types F and G.
6. Water shall be potable.
7. Air entrainment shall be in accordance with ASTM C260 and shall be four percent (4%) plus or minus one percent ($\pm 1\%$).

B. Form Inspection

1. Concrete Form inspection – the City's Project Manager shall inspect the forms for uniformity and bracing.
2. All forms shall be cleaned free of all dried concrete, mud or any other deleterious material.

- 3 Non-petroleum based form oil may be used to coat the forms that will be in contact with concrete.
- 4 Wood forms shall be properly seasoned, of good quality and free of imperfections that may affect its strength or impair the finished surface of the concrete.

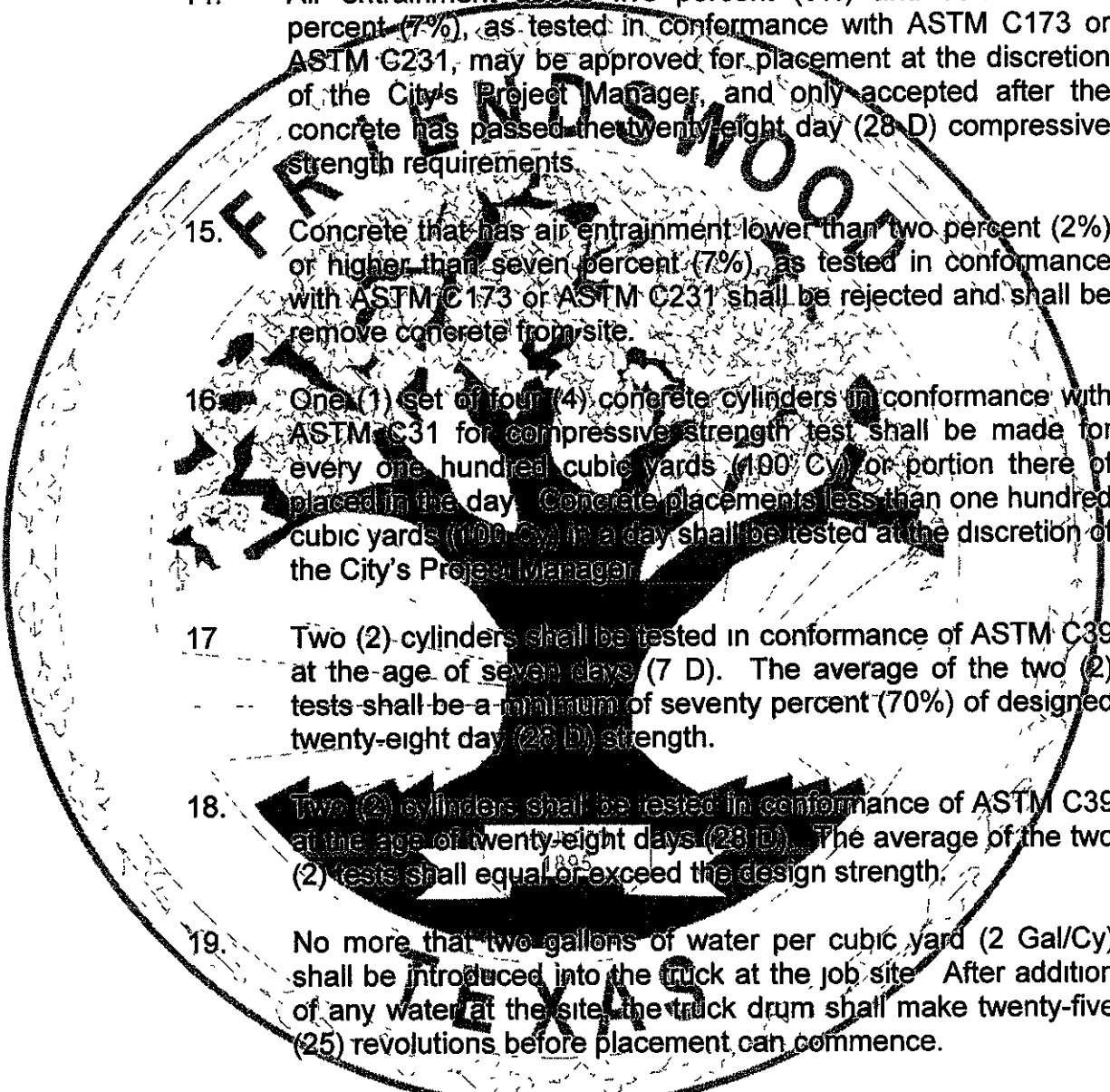
C. Reinforcing Bar Inspection.

1. The City's Project Manager shall inspect all reinforcing bar for conformity to CFTS Section 03200 – Reinforcing Steel.
2. Reinforcing bars shall be placed according to the Drawings, the City of Friendswood Standard Details and the City of Friendswood Technical Specifications.
3. The minimum size of reinforcing bar shall be #4 [one-half inch (1/2 in)] and the minimum spacing shall be sixteen inches (16 in) on center unless otherwise approved by the City's Project Manager.
4. Reinforcing bars shall be one hundred percent (100%) tied at all ends, and fifty percent (50%) tied for the interior of the mat.
5. Splices shall have a minimum of twenty-four inches (24 in) overlapping.
6. Chairs are to be installed so that rebar is no closer from the top than one-third (1/3) of the depth of concrete being placed.
7. Chairs shall be placed at every other bar and under the lowest rebar for support and placed in a checkerboard pattern.

D. Placement of Concrete

- 1 Independent Testing Laboratory shall be on site at all times. The City's Project Manager shall be on site as long as deemed necessary.
- 2 Placement of concrete shall not be allowed when ambient temperature is below forty degrees Fahrenheit (40° F) or above ninety-five degrees Fahrenheit (95° F) and conform to TABLE 4.5 TEMPERATURE REQUIREMENTS FOR PLACEMENT in this Section.

3. Materials shall not exceed eight percent (8%) moisture at the plant.
4. Travel time from batch time at plant to dispersal shall not exceed ninety minutes (90 Min) and conforming to TABLE 4.6 TRANSPORTING TIME REQUIREMENTS
5. Time between trucks, end of last truck placement to beginning of next truck placement shall not exceed sixty minutes (60 Min); otherwise a construction joint shall be installed.
6. Verify the mix design for each truck is the mix design being used.
7. Verify tare weight to actual weights
 - a. Actual weights shall be within plus or minus one percent ($\pm 1\%$) of the tare weight.
 - b. Admixtures shall be within plus or minus one gallon (± 1 Gal) of tare.
8. Water tank on truck shall be full when arriving on site and shall have a readable and accurate measuring gauge attached to the tank.
9. Minimum drum rotations shall be between fifty (50) and seventy (70) before and during transport.
10. Minimum drum rotation shall be between seventy (70) and one hundred (100) arriving at the site and before discharge of concrete.
11. Slump shall be from three inches (3 In) to five inches (5 In) unless plasticizers are introduced to concrete and otherwise approved by the City's Project Manager.
12. Concrete temperature shall not drop below fifty degrees Fahrenheit (50° F) or rise above ninety degrees Fahrenheit (90° F). If ice is added to the mixture as part of the water content, then concrete temperature shall be allowed to rise above ninety degrees Fahrenheit (90° F) but no higher than ninety-five (95) degrees F as conforming to TABLE 4.5 TEMPERATURE REQUIREMENTS FOR PLACEMENT and ASTM C1064.

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13. Slump tests shall be taken in conformance with ASTM C143 at every fifty cubic yards (50 Cy) of concrete. When ambient temperature is above ninety degrees Fahrenheit (90° F), then slump tests shall be taken on every thirty cubic yards (30 Cy) of concrete.
14. Air entrainment above five percent (5%) and below seven percent (7%), as tested in conformance with ASTM C173 or ASTM C231, may be approved for placement at the discretion of the City's Project Manager, and only accepted after the concrete has passed the twenty-eight day (28 D) compressive strength requirements.
15. Concrete that has air entrainment lower than two percent (2%) or higher than seven percent (7%), as tested in conformance with ASTM C173 or ASTM C231 shall be rejected and shall be remove concrete from site.
16. One (1) set of four (4) concrete cylinders in conformance with ASTM C31 for compressive strength test shall be made for every one hundred cubic yards (100 Cy) or portion there of placed in the day. Concrete placements less than one hundred cubic yards (100 Cy) in a day shall be tested at the discretion of the City's Project Manager.
17. Two (2) cylinders shall be tested in conformance of ASTM C39 at the age of seven days (7 D). The average of the two (2) tests shall be a minimum of seventy percent (70%) of designed twenty-eight day (28 D) strength.
18. Two (2) cylinders shall be tested in conformance of ASTM C39 at the age of twenty-eight days (28 D). The average of the two (2) tests shall equal or exceed the design strength.
19. No more that two gallons of water per cubic yard (2 Gal/Cy) shall be introduced into the truck at the job site. After addition of any water at the site, the truck drum shall make twenty-five (25) revolutions before placement can commence.
20. Water added after sampling for testing shall void air entrainment, slump and compressive strength tests that may have been completed before the addition of water. New sample of concrete shall be taken and testing started over again. NO EXCEPTIONS. If after warning the Contractor the condition continues to happen, and the practice continues, the Contractor shall be charged for failed tests.

21. The City's Project Manager and the Independent Testing Laboratory Technicians have the authority to reject any concrete load not matching the City of Friendswood Technical Specifications
22. Load tickets shall be marked rejected, state reason, along with date and time and be signed by the City's Project Manager or Independent Testing Laboratory Technician

3.5 DETENTION POND

- A. Inspect for erosion around inflow/outflow areas and banks.
- B. Area surrounding all drainage ditches, retention and detention ponds shall have turf established at a minimum cover of ninety percent (90%) as required by CFTS Section 02900 – Turf Establishment.
- C. The drainage areas shall have either Galveston County Consolidated Drainage District (GCCDD) or Harris County Flood Control (HCFC) approval before requesting the City's Project Manager for inspection and approval. These inspection may be done simultaneously.

3.6 SANITARY SEWER MANHOLES

- A. Verify that all debris and water is removed from the interior of the manhole being tested and any grout has dried for a minimum of twenty-four hours (24 Hrs)
- B. Insert plugs in influent and effluent pipes. Plugs are to be installed a minimum of six inches (6 in) past the exterior wall of the manhole being tested
- C. Inflate plugs to manufacturer's recommended air pressure.
- D. Inspect testing head. Verify that a gauge exists on the head and that all openings through the head are open, not sealed, with check ball valves.
- E. Install Vacuum testing head on ring of manhole. Testing head shall have a readable gauge that measures inches of mercury by inches
- F. Begin evacuation of air from manhole. Turn pump off when the gauge reads ten inches of mercury (10 inHg)
- G. Softly tap gauge to ensure the gauge is not stuck.

- H Hold vacuum for minimal time as required in TABLE 4.7 VACUUM TESTING TIME TABLE in this Section.
- I. After minimal time is complete, tap gauge twice. If the loss of mercury is one inch (1 in) or less the manhole is considered to have passed.

3.7 SANITARY SEWER FORCE MAINS

- A Testing for High Density Polyethylene (HDPE) Pipe shall be in accordance with paragraph 3.11 of this Section.

- B. Hydrostatic Testing:

- 1 Plug both ends of pipe to be tested.
2. Provide a gauge with a range from zero pounds per square inch (0 psi) to three hundred pounds per square inch (300 psi), graduated in five pounds per square inch (5 psi) increments and is a minimum of three inches (3 in) in diameter. Provide a water tank and a water meter.
3. Fill pipe with water and pressure to either one hundred fifty (150 psi) or one and one-half (1.5) times the design pressure, whichever is greater.
4. Hold pressure for minimum of four hours (4 Hrs).
5. If pressure has held for four hours (4 Hrs), the pipe has passed.
6. If pressure has lost pressure, calculate the maximum allowed loss of water using the following formula:
$$4L = \frac{(S)(D)(P)(0.5)}{133,200}$$
7. Pressure pipe back up to one hundred fifty (150 psi), and record number of gallons required to achieve pressure. If less than or equal to 4L, then pipe is considered to have passed.

- C Pigging Test

- 1 Pigging test shall be conducted on force mains longer than two hundred feet (200 Ft)
- 2 Pig shall be open-cell polyurethane with no abrasives or coatings.

- 3 Pigs shall be capable of passing through reductions of up to sixty-five percent (65%) of nominal cross-section of pipe being tested
- 4 Pigs shall be capable of passing through all standard fittings.
- 5 If pig passes through line being tested, the line is clear of obstructions and is considered to have passed

3.8 SANITARY SEWER GRAVITY LINES

A. Low Pressure Air Test

1. Low pressure air test shall conform to ASTM C828, ASTM C924 or ASTM F1417
2. Clean both ends of pipe free of debris and water.
3. Install and inflate testing balls to manufacturer's recommended air pressure
4. Pressure gravity sanitary sewer line to five pounds per square inch (5 psi) and hold for the minimum time as specified in TABLE 4.9 TIME ALLOWED FOR PRESSURE LOSS FROM 5.0 PSI TO 4.0 PSI in this Section
5. — For lengths longer than the minimum time multiply additional length by factor as specified in CFTS Section 02525 – Table 4.2 TIME ALLOWED FOR PRESSURE LOSS FROM 5.0 PSI TO 4.0 PSI
6. If test pressure drops below four pounds per square inch (4 psi) before the minimal testing time has been achieved then the test is considered to have failed. The Contractor shall make repairs as necessary and schedule a retest.

B. TV INSPECTION

- 1 One week (1 Wk) prior to mandrel test, sewer lines shall be cleaned and a TV inspection completed on each line, from upstream to downstream end.

C. MANDREL TEST

- 1 Mandrel testing shall conform to ASTM D3034

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2. No mandrel test shall be performed until after the gravity sanitary sewer has been installed for a minimum of thirty days (30 D).
3. Install mandrel pull string from manhole to manhole. Pull string shall not exceed three-eighths inch (3/8 In) thick nylon rope for pulling the mandrel.
4. Inspect mandrel size using proving ring provided. Proving ring shall fit snug over the mandrel. Verify that the mandrel is the correct size for the pipe being tested.
5. Once the mandrel is placed in the upstream pipe, slowly pull mandrel to the next manhole. Mandrel shall be pulled in the manhole by one (1) person. Mechanical equipment shall not be allowed to pull the mandrel through the pipe.
6. When mandrel reaches next manhole, mandrel shall be lifted and shown to the City's Project Manager. Mandrel shall never be pulled straight through a manhole, no exceptions.
7. If mandrel gets stuck in the pipe being tested, remove the mandrel and correct defects to the pipe and retest.

D. SMOKE TEST

1. Smoke test shall only be used on existing sanitary sewers that have been repaired or rehabilitated.
2. Only test from one (1) manhole to one (1) manhole section at a time.
3. Residents shall be notified no fewer than two days (2 D) and no more than seven days (7 D) before smoke testing is scheduled to take place.
4. Public Works, Police Department, Fire Department and Notification Contacts shall be notified twenty-four hours (24 Hrs) prior to actual smoke testing.
5. Isolate section gravity sanitary sewer line to be tested at each manhole.
6. Introduce smoke into one (1) or both manholes. Operate smoke generator for a minimum of five minutes (5 Min).

7. Inspect all service line connections at the gravity sanitary sewer main for leaks. Repair and retest all leaks
8. Visually inspect each house on the line being tested. Look for smoke coming through the plumbing vent stack on each house.
9. Any house that does not have smoke coming through the plumbing vent stack shall be checked for proper connection to the gravity sanitary sewer line being tested. Method of checking for proper connection shall be to introduce dye into the service line system at a point on landowner's property, and visually watch for dye to exit into downstream manhole. If no dye is seen, repair and retest service connection.

3.9 SUBGRADE

A. Lime Determination and Atterberg Limits

1. Have Independent Testing Laboratory obtain a representative sample of material.
2. Conform to ASTM D4318 to determine Liquid Limit, Plastic Limit and Plasticity Index.
3. Conform to ASTM D698 for Lime Determination. Minimum Lime content shall be no less than six percent (6%).
4. Make Lime Determination for soil to bring soil to a PI of no more than fifteen (15).

B. Lime Solids Test

1. Lime Solids test shall conform to TxDOT Tex-600-J.
2. Take sample from back of distributor truck.
3. Weigh and calculate samples for Dry Solids as specified in TxDOT Tex-600-J.

C. Gradation Test

1. Immediately after the re-mix of the lime-stabilized subgrade and before lime-stabilized subgrade is compacted, conform to TxDOT Tex-101-E, Part III dry method requirements for testing subgrade using sieve analysis

2. Three (3) random samples shall be taken and tested for every six hundred linear foot (600 Lf) of roadway section or portion thereof for day's production.
3. Locations of the sample areas shall be determined by the City's Project Manager and shall vary from left, center and middle of roadway being tested.

4. Samples shall be a representative sampling of the lime-stabilized subgrade.

5. All three (3) samples must pass sieve analysis. If any one sample fails, then the Contractor shall rework the roadway section tested and have it retested at no cost to the City.

6. Immediately after the roadway section has passed the sieve analysis, the Contractor shall commence to compaction of subgrade.

D Compaction

1. Notify the City's Project Manager a minimum of forty-eight hours (48 Hrs) before testing for compaction.

2. The City's Project Manager shall identify the locations for all density testing.

3. Compaction shall be a minimum of ninety-five (95%) of dry density and moisture shall be at optimum plus or minus three percent ($\pm 3\%$).

4. There shall be only two (2) tests performed in any one (1) hole at one (1) time to achieve density readings. Moving the Nuclear Density Gauge around more than this shall fail the whole work area being tested.

5. Three (3) density tests per lane shall be performed on every two hundred linear feet (200 Lf) of roadway.

6. After one inch (1 In) or more of documented rainfall, subgrade shall be retested and shall conform to 3 9 D 3 and 3 9 D 4.

7. After one inch (1 In) or more of rain, every five hundred feet (500 Ft) per lane of roadway shall be tested.

- 8 Stipulations in 3 9 D 6 and 3 9 D 7 shall be reinstituted after each additional one inch (1 In) of rainfall until paving has been placed.

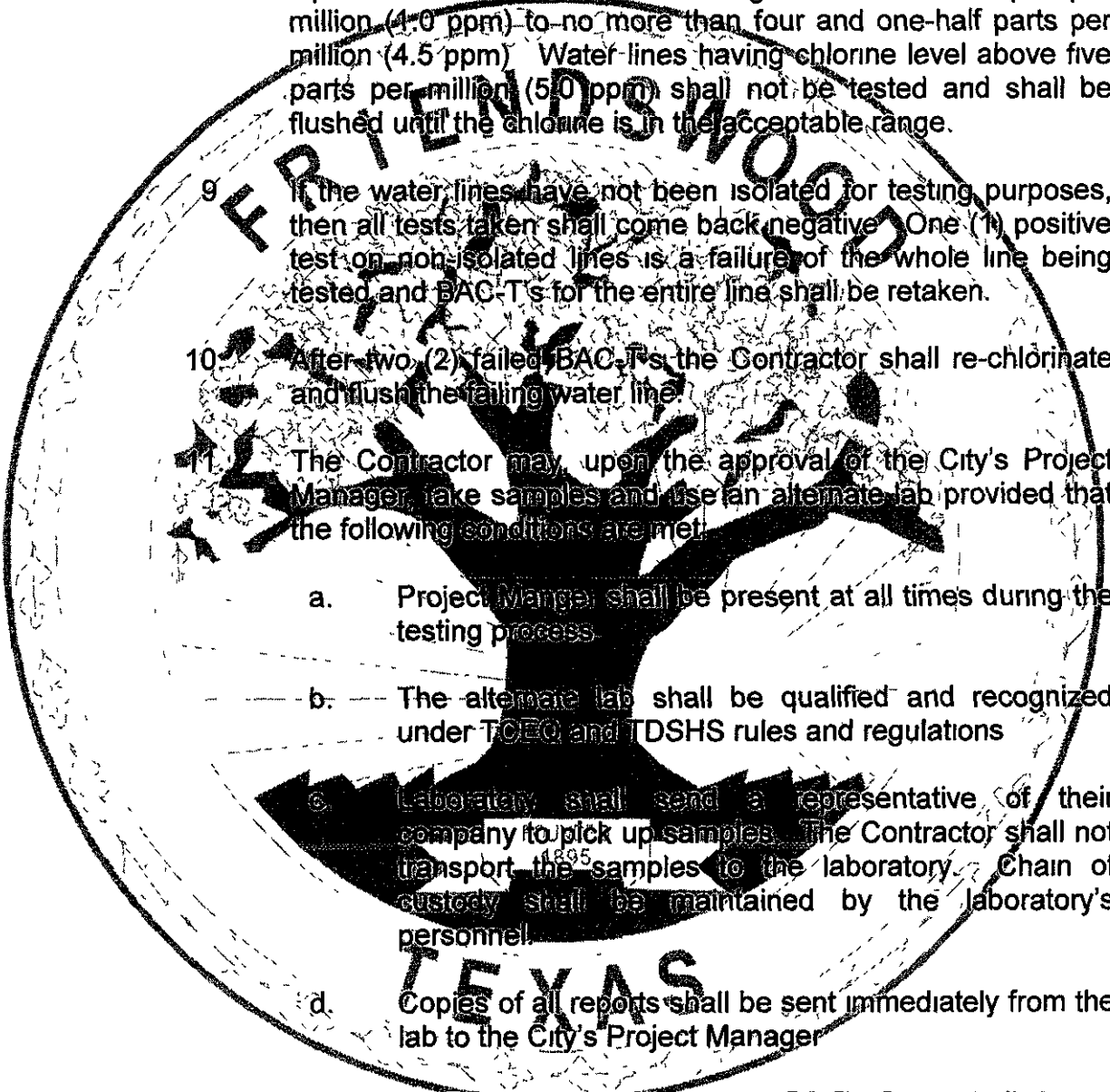
E. In-place Depth Test

- 1 Contractor shall notify the City's Project Manager a minimum of forty-eight hours (48-Hrs) prior to the start of testing.
- 2 In place depth test for lime stabilization shall conform to TxDOT Tex-140-E.
- 3 Tests shall be taken in hand excavated holes only NO EXCEPTIONS
- 4 Three (3) samples shall be taken for each one thousand foot (1000 Ft) section of subgrade place per lane.
- 5 Depth shall be based on the average of all three (3) samples from the section being tested.
- 6 Failing sections shall be remixed and recompactd with correct amount of subgrade in place.

3 10 WATER LINES

A. Bacteriological Test (BAC-T)

1. The Contractor shall notify the City's Project Manager at least forty-eight hours (48 Hrs) in advance of testing. All testing shall conform to TCEQ and TDSHS NO EXCEPTIONS
2. The City's testing collection times shall be at 10.00 a.m on Tuesdays and Thursdays only. NO EXCEPTIONS.
3. Water line shall have been thoroughly flushed prior to and at least on the day of the scheduled testing.
4. The City's Public Works Department personnel shall open the valves and collect the samples
5. There shall be one (1) BAC-T taking for every one thousand linear feet (1000 Lf) of pipe installed Any linear footage, no matter the amount, over one thousand linear feet (1000 Lf) shall require another BAC-T for that portion.

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- 6 The City's Project Manager shall identify and mark the locations of the BAC-T's to be taken.
 - 7 Maximum testing length shall be no more than four thousand linear feet (4000 Lf) at one (1) given testing day
 - 8 Optimum chlorine content for testing shall be from one part per million (1.0 ppm) to no more than four and one-half parts per million (4.5 ppm). Water lines having chlorine level above five parts per million (5.0 ppm) shall not be tested and shall be flushed until the chlorine is in the acceptable range.
 - 9 If the water lines have not been isolated for testing purposes, then all tests taken shall come back negative. One (1) positive test on non-isolated lines is a failure of the whole line being tested and BAC-T's for the entire line shall be retaken.
 - 10 After two (2) failed BAC-T's the Contractor shall re-chlorinate and flush the failing water line.
 - 11 The Contractor may, upon the approval of the City's Project Manager, take samples and use an alternate lab provided that the following conditions are met:
 - a. Project Manager shall be present at all times during the testing process.
 - b. The alternate lab shall be qualified and recognized under TCEQ and TDSHS rules and regulations.
 - c. Laboratory shall send a representative of their company to pick up samples. The Contractor shall not transport the samples to the laboratory. Chain of custody shall be maintained by the laboratory's personnel.
 - d. Copies of all reports shall be sent immediately from the lab to the City's Project Manager.

B Testing for High Density Polyethylene (HDPE) Pipe shall be in accordance with paragraph 3 11 of this Section.

C. Hydrostatic Test of Water Lines

- 1 The Contractor shall notify the Project Manager a minimum of forty-eight hours (48 Hrs) before testing

2. Hydrostatic Testing shall conform to American Water Works Associations' Manual M-23, latest revision.
3. The Contractor shall supply all pumps, gauges, meters and other equipment necessary to perform the test procedures. Testing gauge shall measure pressure in five pounds per square inch (5 psi) increments.
4. One (1) test shall be taken for every one thousand linear feet (1000 Lf) of water line.
5. Fill the auxiliary tank full of water and using the pressure pump, pressurize the water line to one hundred fifty pounds per square inch (150 psi). [Dedicated Fire Lines shall be pressurized to two hundred pounds per square inch (200 psi)].
6. After gauge achieves one hundred pounds per square inch (150 psi) close valves and stop pump.
7. Softly tap the glass of the gauge. Start time of the test.
8. Test time shall be no less than a minimum of four hours (4 Hrs) [Dedicated Fire Lines shall be tested for no less than a minimum of two hours (2 Hrs)].
9. At the end of the test period, softly tap pressure gauge, if needle does not move then the line is considered to have passed.
10. Fill line back up with water and use the following water to calculate minimum allowed loss as calculated using the formula below:
$$L = \frac{4NDP^{1/2}}{7400}$$
11. If amount of gallons lost is less than that calculated, then the test is considered to have passed.

3.11 Hydrostatic Testing of High Density Polyethylene (HDPE) Pipe in Pressurized Systems

A Restraint.

1. All valves, tees elbows and dresser couplings shall be

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restrained with stainless steel all thread

- 2 Test gauge shall be installed at the lowest point in the test section

B. Pipe filling.

1. Quantity of liquid needed to fill the internal volume of the pipe test section shall be estimated using the following formula

$$V_{GAL} = 0.04 \times ID_{in}^2 \times L_{FT}$$

where:

- a. V_{GAL} = pipe section volume in U.S. gallons
- b. ID_{in} = pipe inside diameter in inches
- c. L_{FT} = test section length in feet

2. An appropriate excess quantity of liquid, up to forty percent (40%) may be needed to account for pipe expansion and possibility of leakage

3. Fill test section of pipe slowly, allowing all air to be purged from the pipe.

4. Allow the test section and the test liquid to equalize in temperature

C. Initial Expansion Phase

1. Expansion Phase can take up to, but shall be no longer than, four hours (4 H)

2. Slowly pressurize the test section to test pressure, one hundred fifty pounds per square inch (150 PSI), and maintain for three hours (3 H). During the initial expansion phase the polyethylene pipe will expand slightly. Additional test liquid will be required to maintain test pressure

D Testing Phase

1. Immediately following the initial expansion phase, monitor the amount of liquid required to maintain test pressure (150 psi) for one hour (1 H).

2. If the amount of liquid does not exceed the amount listed in TABLE 4.10 MAKE-UP WATER ALLOWANCE, then no leakage is detected and the test section a passing test is indicated.

3 Should the test fail and retesting become necessary, depressurize test section in accordance with paragraph 3.11 E

a. Do not attempt to correct faults or leaks until after test section is completely depressurized.

b. A minimum relaxation period of eight hours (8 H) shall be observed before re-pressurization. After relaxation period, retest starting with the initial expansion phase

E. Post Test Procedures

1. At the conclusion of the test, test section shall be depressurized by a controlled release of the test fluid. The potential of a pressure surge is avoided by a controlled release.

PART IV: TABLES

4.1 CONCRETE CLASSIFICATION MINIMUM SPECIFICATIONS

CONCRETE CLASSIFICATION MINIMUM SPECIFICATIONS					
Class of Concrete	Sacks of Cement per Cubic Yard Minimum	Minimum Compressive Strength at 28 Days	Maximum Cement to Water Ratio	Coarse Aggregate Grade Number	Slump
A	5.0	3000	6.25	2-3	3-5*
B	6.0	3600	6.00	1,2,3,4,5	4
C	4.0	2000	8.00	2,3,4,5,6,7	5
D	6.0	3000	6.00	2,3,4,5	5
E	6.0	As specified	5.50	3,4,5,6	5
F	8.75	5500	3.6	6	5

***When ASTM C494, Type F or Type G admixture is used to increase workability, this range may be 6 to 9.**

4.2 COARSE AGGREGATE GRADATION

COARSE AGGREGATE GRADATION CHART										
Aggregate Grade No.	Nominal Size Inches	Percent Retained on Each Sieve								
		2-1/2 In.	2 In.	1-1/2 In.	1 In.	3/4 In.	1/2 In.	3/8 In.	No. 4	No. 8
1	2	0	0-20	15-50		60-80			95-100	
2 (467)*	1-1/2		0	0-5		30-65		70-90	95-100	
3	1-1/2		0	0-5		10-40		40-75	95-100	
4 (57)*	1			0	0-5		40-75		90-100	95-100
5 (67)*	3/4				0	0-10		45-80	90-100	95-100
6 (75)*	1/2					0	0-10	30-60	85-100	95-100
7	3/8						0	5-30	75-100	
8	3/8						0	0-5	35-80	90-100

* Numbers in parenthesis indicate that the gradations conform to corresponding ASTM gradation in ASTM C33.

4.3 FINE AGGREGATE GRADATION

FINE AGGREGATE GRADATION CHART								
Aggregate Grade No.	Percent Retained on Each Sieve							
	3/8 In.	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200
1	0	0-5	0-20	15-50	35-75	65-90	90-100	97-100

4.4 MINERAL FILLERS

MINERAL FILLER GRADATION CHART		
Percent Retained on Each Sieve		
No. 20	No. 30	No. 100
0 %	0 to 5 %	0 to 30 %

4.5 TEMPERATURE REQUIREMENTS FOR PLACEMENT

PLACEMENT TEMPERATURE REQUIREMENTS	
AMBIENT TEMPERATURE¹	
Minimum temperature to start placing concrete	35° and rising
Minimum temperature to stop placing concrete	40° and falling
Maximum temperature for placing concrete without ice	90°
Maximum temperature for placing concrete with ice	100°
CONCRETE TEMPERATURE	
Minimum concrete temperature	50°
Maximum concrete temperature without ice	90°
Maximum concrete temperature with ice	95°
MINIMUM CURING TIMES WHEN PLACED CONCRETE HAS BEEN EXPOSED TO FREEZING TEMPERATURES	
From 50° to 70° minimum days	5
70° and above minimum days	3
¹ Ambient temperature is to be taken as specified in paragraph 3.3 F.1 of this section	

4.6 TRANSPORTING TIME REQUIREMENTS

TRANSPORTING TIME REQUIREMENTS FOR PLACEMENT		
Ambient Temperature	Maximum Time (No Retarding Agent) in Minutes	Maximum Time (With Retarding Agent) in Minutes ¹
Non-Agitated Concrete		
Above 80° F	15	30
80° F and Below	30	45
Agitated Concrete		
Above 90° F	45	75
75° F to 90° F	60	90
75° F and Below	90	120
NOTE. Time interval shall be from the addition of cement to the batch to start of placement of concrete in the forms.		
¹ Normal Dosage of retarder		

4.7 TIME ALLOWED FOR PRESSURE LOSS FROM 5.0 PSI TO 4.0 PSI

Pipe Dia. In.	Min. Time mm:ss	Length for Min. Time	Time for Longer Length	Specification Time for Length (L) shown in MM:SS				
				100'	150'	200'	250'	300'
6	5:40	398	0:8548	5:40	5:40	5:40	5:40	5:40
8	7:33	298	1:5196	7:33	7:33	7:33	7:33	7:36
10	9:27	239	2:3743	9:27	9:27	9:27	9:54	11:52
12	11:20	199	3:4190	11:20	11:20	11:20	14:15	17:06
15	14:10	159	5:3423	14:10	14:10	17:48	22:16	26:43
18	17:00	133	7:6928	17:00	19:14	25:39	32:03	38:28
21	19:50	114	10:4708	19:50	26:11	34:54	43:38	52:21
24	22:40	99	13:6762	22:48	34:11	45:35	56:59	68:23
27	25:30	88	17:3089	28:51	43:16	57:42	72:07	86:33
30	28:20	80	21:3690	35:37	53:25	71:14	89:02	106:51
33	31:10	72	25:8565	43:06	64:38	86:11	107:44	129:17

Pipe Dia. In.	Min. Time mm:ss	Length for Min. Time	Time for Longer Length	Specification Time for Length (L) shown in MM:SS					
				350'	400'	450'	500'	550'	600'
6	5:40	398	0:8548	5:40	5:42	6:25	7:07	7:50	8:33
8	7:33	298	1:5196	8:52	10:08	11:24	12:08	13:56	15:12
10	9:27	239	2:3743	13:51	15:50	17:48	19:47	21:46	23:45
12	11:20	199	3:4190	19:57	22:48	25:39	28:30	31:20	34:11
15	14:10	159	5:3423	31:10	35:37	40:04	44:31	48:58	53:25
18	17:00	133	7:6928	44:52	51:17	57:42	64:06	70:31	76:56
21	19:50	114	10:4708	61:05	69:48	78:32	87:15	95:59	104:42
24	22:40	99	13:6762	79:47	91:10	102:34	113:58	125:22	136:46
27	25:30	88	17:3089	100:58	115:24	129:49	144:14	158:40	173:05
30	28:20	80	21:3690	124:39	142:28	160:16	178:05	195:53	213:41
33	31:10	72	25:8565	150:50	172:23	193:55	215:28	237:01	258:34

4.8 – VACUUM TESTING TIME TABLE

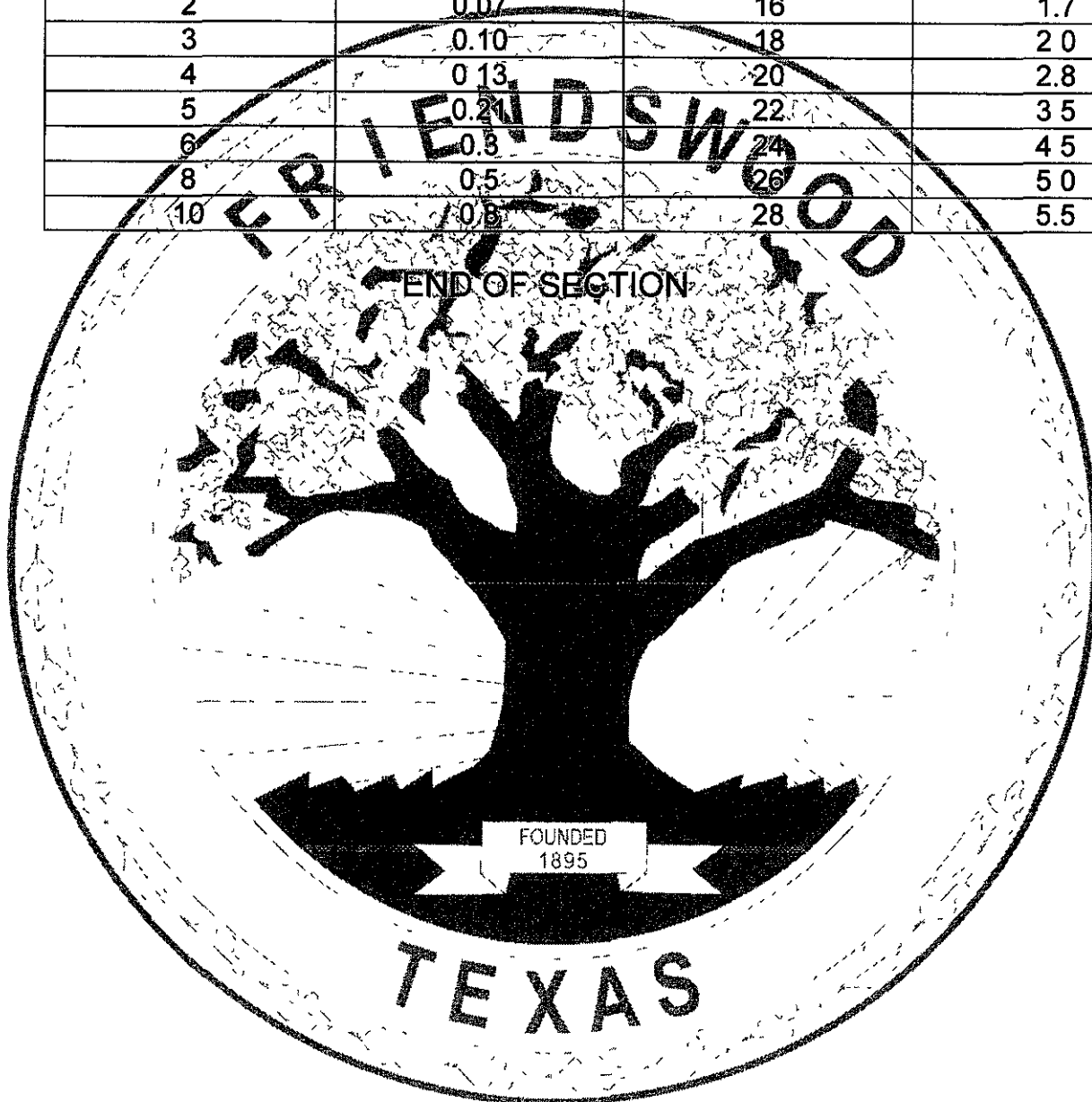
TIME ALLOWED FOR VACUUM LOSS FROM 10.0 Hg TO 9.0 Hg			
TIME IN SECONDS BY DIAMETER OF MANHOLES			
Manhole Depth in Feet	48" Diameter	60" Diameter	72" Diameter
8' and less	14	18	23
10	17	28	28
12	21	28	34
14	25	32	40
16	28	37	45
18	33	41	51
20	35	46	57
22	39	51	62
24	42	55	68
26	46	60	74
28	49	64	80
30	53	69	85

4.9 MINIMUM TESTING TIMES FOR LOW PRESSURE AIR TEST

Pipe Diameter (Inches)	Minimum Time (seconds)	Length of Pipe for Minimum Time (feet)	Time for Longer Length (seconds)
6	340	398	0.855 (L)
8	454	298	1.520 (L)
10	567	239	2.374 (L)
12	680	199	3.449 (L)
15	850	159	5.342 (L)
18	1020	133	7.693 (L)
21	1190	114	10.471 (L)
24	1360	99	13.676 (L)
27	1530	88	17.309 (L)
30	1700	80	21.369 (L)
33	1870	72	25.856 (L)

4.10 MAKE-UP WATER ALLOWANCE

Nominal Pipe Size (Inches)	Allowable Gallons per 100 Feet of Pipe	Nominal Pipe Size (Inches)	Allowable Gallons per 100 Feet of Pipe
1-1/4	0.06	12	1.1
1-1/2	0.07	14	1.4
2	0.07	16	1.7
3	0.10	18	2.0
4	0.13	20	2.8
5	0.21	22	3.5
6	0.3	24	4.5
8	0.5	26	5.0
10	0.8	28	5.5



SECTION 01500

MOBILIZATION

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Mobilization of construction equipment and facilities onto the site.

1.2 MEASUREMENT AND PAYMENT

- A Unit Price Contracts. If Contract is Unit Price Contract, measurement for mobilization is on a lump sum basis.
- B. Total Stipulated Price (Lump Sum) Contract. If Contract is Total Stipulated Price Contract, payment for the Work in this Section is included in Total Stipulated Price.
- C. Mobilization payments will be included in monthly payment estimates upon written application by the Contractor subject to the following provisions:
1. Authorization for payment of fifty percent (50%) of that portion of the Contract Price designated for mobilization will be made upon receipt and approval by the Project Manager of the following items, as applicable:
 - a. Safety Program (Section 00500 – General Conditions)
 - b. Schedule of Values (Section 01295 – Schedule of Values).
 - c. Initial Construction Photographs (Section 01320 – Construction Photographs)
 - d. Construction Schedule (Section 01325 – Construction Schedule).
 - f. Submittal Schedule (Section 01330 – Submittal Procedures)
 - g. Site specific Storm Water Pollution Prevention Plan (SWPPP) and Notice of Intent (NOI) along with storm water application fee (Section 01410 – TPDES Requirements).

- h. Contractor's Quality Control Plan (Section 01450 – Contractor's Quality Control)
- i. Establishment of a Field Office for the Project Manager meeting requirements of Section 01520 – Temporary Field Office, when an office is required by the Contract
- j. Traffic Control Plan (Section 01555 – Traffic Control and Regulation).
- k. Plan for Control of Ground and Surface Water (Section 01585 – Control of Ground and Surface Water)
- l. Project Signs Submittal (Section 01430 – Project Signage)
- m. Trench Safety Program (Section 02280 – Trench Safety Systems)
- n. Dewatering Plan, when required.

2. Authorization for payment of the balance of that portion of the Contract Price designated for mobilization will be made upon completion of the Work amounting to five percent (5%) of the Original Contract Price. The amount of the Contract Price designated for mobilization may not be applied in computing whether or not five percent (5%) of the Original Contract Price has been obtained.

3. Mobilization payments will be subject to retainage amounts stipulated in Document 00400 – Standard Agreement of Contracting Services, Article VI.

1.3 REFERENCES

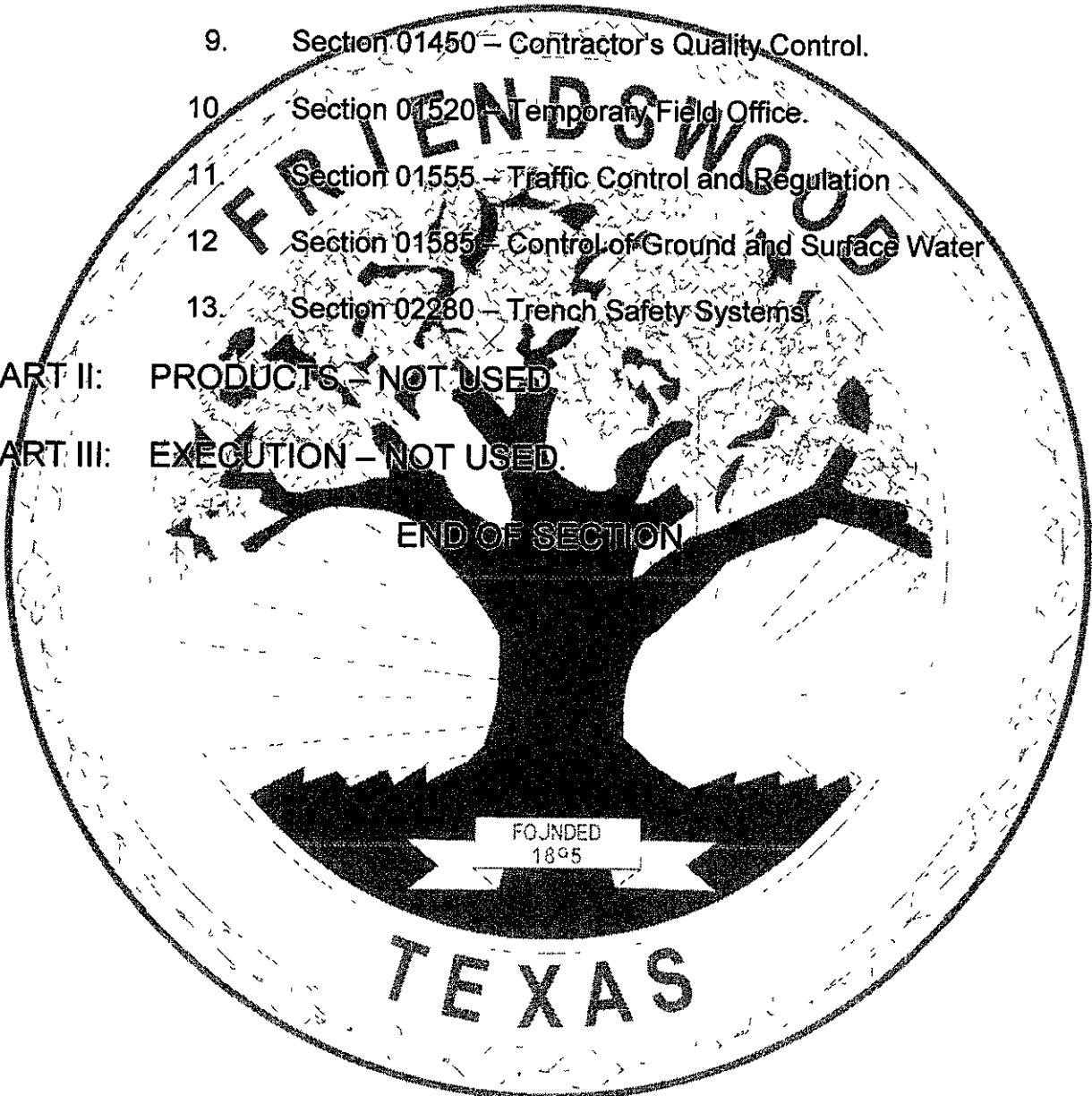
- A. CFTS – City of Friendswood Technical Specifications
 - 1. Document 00400 – Standard Agreement for Contracting Services
 - 2. Section 00500 – General Conditions
 - 3. Section 01295 – Schedule of Values
 - 4. Section 01320 – Construction Photographs

- 5 Section 01325 – Construction Schedule.
- 6 Section 01330 – Submittal Procedures
- 7 Section 01410 – TPDES Requirements.
- 8 Section 01430 – Project Signage
9. Section 01450 – Contractor's Quality Control.
- 10 Section 01520 – Temporary Field Office.
- 11 Section 01555 – Traffic Control and Regulation
- 12 Section 01585 – Control of Ground and Surface Water
13. Section 02280 – Trench Safety Systems

PART II: PRODUCTS – NOT USED

PART III: EXECUTION – NOT USED.

END OF SECTION

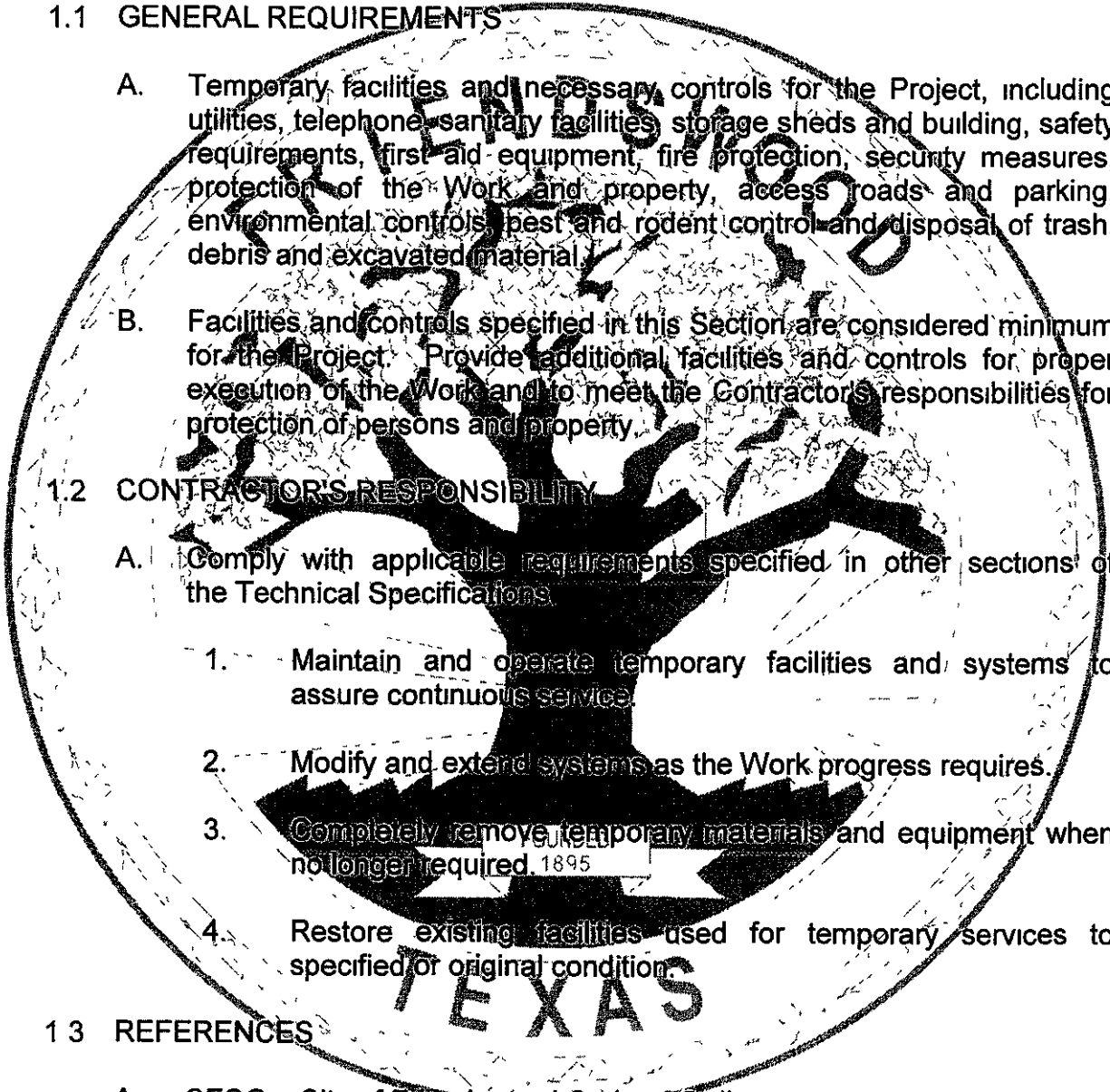


SECTION 01505

TEMPORARY FACILITIES AND CONTROLS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- 
- A. Temporary facilities and necessary controls for the Project, including utilities, telephone, sanitary facilities, storage sheds and building, safety requirements, first aid equipment, fire protection, security measures, protection of the Work and property, access roads and parking, environmental controls, pest and rodent control and disposal of trash, debris and excavated material.
 - B. Facilities and controls specified in this Section are considered minimum for the Project. Provide additional facilities and controls for proper execution of the Work and to meet the Contractor's responsibilities for protection of persons and property.

1.2 CONTRACTOR'S RESPONSIBILITY

- A. Comply with applicable requirements specified in other sections of the Technical Specifications.
 - 1. Maintain and operate temporary facilities and systems to assure continuous service.
 - 2. Modify and extend systems as the Work progress requires.
 - 3. Completely remove temporary materials and equipment when no longer required.
 - 4. Restore existing facilities used for temporary services to specified or original condition.

1.3 REFERENCES

- A. CFCO – City of Friendswood Code of Ordinances
 - 1 Chapter 54, Article IV – Noise
- B. CFR – Code of Federal Regulations
 - 1 CFR 29 Part 1926 – Safety and Health Regulations for Construction.

C. CFTS – City of Friendswood Technical Specifications

1. Section 00500 – General Conditions.
2. Section 01140 – Work Restrictions.
3. Section 01410 – TPDES Requirements
4. Section 01555 – Traffic Control and Regulation
5. Section 02280 – Trench Safety Systems.

D. TOSA – Texas Occupational Safety Act.

1. Texas Occupational Safety Act Article 51.82a, V.C.S.

PART II: PRODUCTS – NOT USED

PART III: EXECUTION

3.1 TEMPORARY UTILITIES

A. Obtaining Temporary Service:

1. Make arrangements with utility service companies for temporary services.
2. Abide by rules and regulations of the utility service companies or authorities having jurisdiction.
3. Be responsible for utility service costs until Date of Substantial Completion. Included are fuel, power, light, heat, and other utility services necessary for execution, completion, testing, and initial operation of the Work.

B. Water:

1. Provide water required for and in connection with work to be performed and for specified tests of piping, equipment, devices, or for other use as required for proper completion of the Work.
2. Water to be drawn from public fire hydrants. Obtain transit meter from City of Friendswood, Department of Public Works. Pay required deposit.

3. Provide and maintain an adequate supply of potable water for domestic consumption by the Contractor's personnel, the Project Manager and representatives of the City.

C. Electricity and Lighting

1. Provide electric power service required for the Work including required testing, lighting, operation of equipment, and other Contractor use.
2. Electric power service includes temporary power or generators required to maintain plant operations during scheduled shutdowns.
3. Minimum lighting level shall be ten foot-candles (10 fc) for open areas; twenty foot-candles (20 fc) for stairs and shops. Provide a minimum of one (1) three hundred watt (300w) lamp for each two hundred square feet (200 Sf) of work area.

D. Temporary Heat and Ventilation

1. Provide temporary heat necessary for protection or completion of the Work.
2. Provide temporary heat and ventilation to assure safe working conditions; maintain enclosed areas at a minimum of fifty degrees Fahrenheit (50° F).

E. Telephone

1. Provide emergency telephone service at the Project site for use by the Contractor's personnel and others performing work or furnishing services at the site.
2. Provide Houston Metro lines, allowing unlimited calls, without charge in Greater Houston Metropolitan area with "call waiting" and "call forwarding" options. Provide one (1) telephone answering machine with beeperless remote message retrieval capability.

F. Sanitary Facilities

1. Provide and maintain sanitary facilities for persons on the site, comply with regulations of State and local departments of health
2. Enforce use of sanitary facilities by construction personnel at

site Enclose sanitary facilities. Pit-type toilets are not permitted. No discharge will be allowed from these facilities. Collect and store sewage and waste so as not to cause nuisance or health problems. Haul sewage and waste off-site and properly dispose in accordance with applicable regulations. Sewage shall not be disposed of on-site, buried or introduced into the Storm Water System

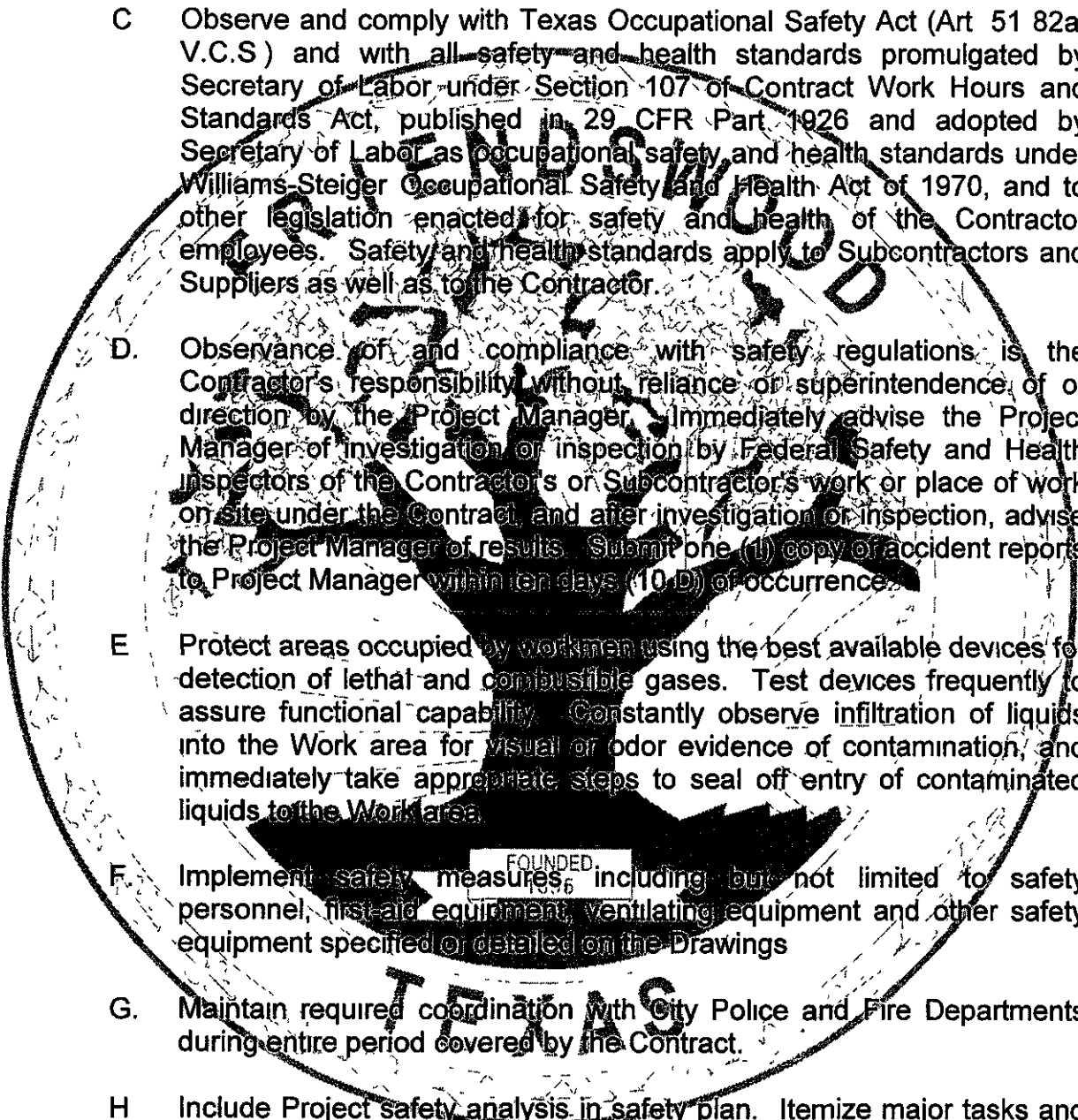
- 3 Locate portable toilets near the Work site and secluded from view insofar as possible. Portable toilets shall be installed on level ground, twenty feet (20 Ft) away from nearest downslope storm drain inlet and shall be a minimum of eleven feet (11 Ft) behind curbs or top slopes of open ditch streets.
- 4 Portable toilets shall have a secondary containment system, either a containment pan or berm with ten (10) mil polyethylene. Portable toilets shall be secured to the ground so as not to tip over during windstorms. All spillage shall be pumped out immediately.
- 5 Keep portable toilets clean and supplied throughout the course of the Work. Portable toilets shall be transported to and from site, maintained and sewage hauled by a Contractor licensed by the State of Texas. All facilities shall be checked weekly and shall have service dates, owner identification and contact information in a prominent place.

3.2 STORAGE SHEDS AND BUILDINGS

- A Provide adequately ventilated, watertight storage facilities with floor above ground level for Products susceptible to weather damage.
- B Storage of Products not susceptible to weather damage may be on blocks off the ground.
- C Store Products in a neat and orderly manner. Place Products to permit easy access for identification, inspection and inventory.
- D Fill and grade site for temporary structures to provide drainage away from temporary and existing buildings.

3.3 SAFETY REQUIREMENTS

- A Submit a safety program at the pre-construction meeting and follow the program in accordance with Section 00500 – General Conditions. Include documented response to trench safety requirements of Section 02280 – Trench Safety System.

- 
- B Conduct operations in strict accordance with applicable Federal, State and local safety codes and statutes and with good construction practice. Establish and maintain procedures for safety of all work, personnel and equipment involved in the Work
- C Observe and comply with Texas Occupational Safety Act (Art 51 82a, V.C.S) and with all safety and health standards promulgated by Secretary of Labor under Section 107 of Contract Work Hours and Standards Act, published in 29 CFR Part 1926 and adopted by Secretary of Labor as occupational safety and health standards under Williams-Steiger Occupational Safety and Health Act of 1970, and to other legislation enacted for safety and health of the Contractor employees. Safety and health standards apply to Subcontractors and Suppliers as well as to the Contractor.
- D. Observance of and compliance with safety regulations is the Contractor's responsibility without reliance or superintendence of or direction by the Project Manager. Immediately advise the Project Manager of investigation or inspection by Federal Safety and Health inspectors of the Contractor's or Subcontractor's work or place of work on site under the Contract, and after investigation or inspection, advise the Project Manager of results. Submit one (1) copy of accident reports to Project Manager within ten days (10 D) of occurrence.
- E Protect areas occupied by workmen using the best available devices for detection of lethal and combustible gases. Test devices frequently to assure functional capability. Constantly observe infiltration of liquids into the Work area for visual or odor evidence of contamination, and immediately take appropriate steps to seal off entry of contaminated liquids to the Work area.
- F. Implement safety measures including but not limited to safety personnel, first aid equipment, ventilating equipment and other safety equipment specified or detailed on the Drawings
- G. Maintain required coordination with City Police and Fire Departments during entire period covered by the Contract.
- H Include Project safety analysis in safety plan. Itemize major tasks and potential safety hazards. Plan to eliminate hazards or protect workers and public from each hazard

3.4 FIRST AID EQUIPMENT

- A. Provide a first aid kit throughout the construction period. List telephone numbers for physicians, hospitals, and ambulance services in each first

aid kit

- B Have at least one (1) person thoroughly trained in first aid and CPR procedures present on the site when work is in progress. The Contractor shall conform to protocols and requirements for training and protection against "blood borne pathogens"

3.5 FIRE PROTECTION

- A Conform to specified fire protection and prevention requirements established by Federal, State or local governmental agencies and as provided in Safety Program.

3.6 SECURITY MEASURES

- A. Protect the Work, materials, equipment, and property from loss, theft, damage or vandalism. Protect the City property used in performance of the Contract.
- B. If existing fencing or barriers are breached or removed for purposes of construction, provide and maintain temporary security fencing equal to existing.

3.7 PROTECTION OF UTILITIES AND PIPELINES

- A Prevent damage to existing public utilities during construction. Approximate locations of known utilities are shown on the Drawings, but all lines may not be shown. Excavate with caution and repair lines damaged by construction operations.
- B. Use the Utility Coordinating Committee One Call System, telephone number (713) 223-4567, which must be called forty-eight hours (48 Hrs) in advance. The toll free telephone number is 1-800-669-8344, Texas One Call System.

1. City Utilities that need to be located shall be done so after notification of the Project Manager and the Department of Public works at (281) 996-3380

- C. Before excavating, locate underground utilities by appropriate means including the use of metal detection equipment, and probes, or by excavation or surveys. Repair damage caused by investigative work and by failure to locate or to preserve underground utilities.
- D. Give utility owners a minimum five days (5 D) notice before commencing excavation to allow time to locate utilities and make adjustments or relocations when they conflict with the Work. Include

cost for temporary relocation of water, wastewater, and storm drainage lines, necessary to accommodate construction, in unit prices for utility construction unless otherwise noted. Bypassing of sanitary waste to storm drainage facilities is not allowed.

- E Prior to excavation near pipelines, request a representative of the pipeline company to meet with the Contractor and the Project Manager at the site to discuss procedures to be used. Request pipeline company's representative to locate the pipelines in at least three (3) locations at each side and at centerline of proposed excavation of proposed utility. Also request representative and the Project Manager to be present to observe the Contractor's operations when excavation is conducted within fifteen feet (15 Ft) of pipeline.

3.8 PROTECTION OF THE WORK AND PROPERTY

A. Preventive Actions

1. Take necessary precautions and actions to prevent damage, injury, or loss to the Work or public and private property, including:

- a. Storage of apparatus, supplies, and Products in an orderly, safe manner to limit interference with progress of the Work or work of other contractors, utility service companies, or the City's operations.

- b. Suitable storage for Products subject to damage by exposure to weather, theft, breakage, etc.

- c. Limitation of loading pressures imposed upon portions of the Work.

- d. Frequent clean up of refuse, scrap materials, and debris from construction operations, necessary to maintain the site in a safe and orderly condition.

- e. Provision of barricades and guard rails to protect pedestrian and traffic around openings, scaffolding, temporary stairs and ramps, excavations, elevated walkways, and other hazardous areas.

2. Protect public and private property adjacent to the site. Obtain written consent before entering or occupying privately-owned land except on easements provided for construction. Restore property damaged by construction operations to condition equal to or better than that existing before the damage.

B. Barricades and Warning Systems

- 1 Where work is performed on or adjacent to roadways, rights-of-ways, or public land, provide barricades, fences, lights, warning signs, danger signals, and other precautionary measures necessary for protection of persons or property and for protection of the Work.

- a Erect sufficient barricades to keep vehicles and pedestrians from entering the Work. Paint barricades to be visible at night. From sunset to sunrise, provide at least one (1) light at each barricade.

- b Maintain barricades, signs, lights, and provide watchmen until the Project Manager approves removal. Whenever work creates encroachment onto public roadways, station flagmen to manage traffic flow in accordance with approved traffic control plan.

- c Conform to requirements of Section 01555 – Traffic Control and Regulation.

C. PROTECTION OF EXISTING STRUCTURES

- 1 **Underground Facilities**

- a Known Underground Facilities are shown on the Drawings but all Facilities may not be shown. Explore sufficiently ahead of trenching and excavation work to locate Underground Facilities in order to prevent damage to them and to prevent interruption of utility services. Restore damage to Underground Facilities to original condition at no additional cost to the City.

- b If necessary to avoid unanticipated Underground Facilities, the Project Manager may make changes in location of the Work.

- c If permanent relocation of an Underground Facility is required and not provided for in the Contract documents, the Project Manager shall direct the Contractor in writing to perform the Work under Modification provisions in Section 00500 – General Conditions.

2. Surface Structures include buildings, tanks, walls, bridges,

roads, dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, walks, guard cables, fencing, and other facilities that are visible above the ground level

3. Protection of Underground Facilities and Surface Structures:

a Support in place and protect Underground Facilities and Surface Structures located within or adjacent to the limits of the Work from damage. Install supports as required by the owner of the structure. Satisfy the Project Manager that the owner of the facility or structure has approved methods and procedures before installing structure supports.

b Avoid moving or changing public utility or private corporation property without prior written consent of a responsible official of the facility or structure. Allow representatives of utilities to enter the construction site for maintenance and repair purposes or to make necessary changes.

c Notify utility and pipeline owners and operators of the nature of construction operations and dates when operations will be performed. When construction operations are required in immediate vicinity of existing structures, pipelines, or utilities, give a minimum of five working days (5 WD) advance notice. Probe and flag location of Underground Facilities prior to commencement of excavation. Keep flags in place until construction operations uncover the facility.

d Assume risk for damages and expenses to Underground Facilities and Surface Structures within or adjacent to the Work.

D. Employ a structural engineer to ensure protection measures are adequate for the safety and integrity of structures and facilities

E. Protection of Installed Products:

1. Provide protection of Installed Products to prevent damage from subsequent operations. Remove protection facilities when no longer needed, prior to completion of the Work

2. Control traffic to prevent damage to Products and surfaces

3. Provide coverings to protect Products from damage. Cover

projections, wall corners, jambs, sills, and exposed sides of openings in areas used for traffic and passage of materials in subsequent work

3.9 ROADS AND PARKING

- A Prevent interference with traffic and operations of the City on existing roads.
- B Designate temporary parking areas to accommodate construction and the City personnel. When site space is not adequate, provide additional off-site Parking. Locate as approved by the Project Manager
- C Minimize use by construction traffic on existing streets and driveways
- D Do not allow heavy vehicles or construction equipment in existing parking areas

3.10 ENVIRONMENTAL CONTROLS

- A Use methods, equipment, and temporary construction necessary for control of environmental conditions at the site and adjacent areas.
- B Comply with statutes, regulations, and ordinances relating to prevention of environmental pollution and preservation of natural resources including National Environmental Policy Act of 1969, PL 91-190, Executive Order 11514.
- C Minimize impact to the surrounding environment. Do not use construction procedures that cause unnecessary excavation and filling of terrain, indiscriminate destruction of vegetation, air or stream pollution, or harassment or destruction of wildlife
- D Limit disturbed areas to boundaries established by the Contract. Do not pollute on-site streams, sewers, wells, or other water sources
- E Do not burn rubbish, debris or waste materials.

3.11 POLLUTION CONTROL

- A Provide methods, means, and facilities necessary to prevent contamination of soil, water or the atmosphere by discharge of Pollutants from construction operations.
- B Provide equipment and personnel to perform emergency measures to contain spillage, and to remove contaminated soils or liquids. Excavate and dispose of contaminated earth off-site in accordance with laws and

regulations, and replace with suitable compacted fill and topsoil.

C. Provide systems necessary for control of Pollutants.

1. Prevent toxic concentrations of chemicals.
2. Prevent harmful dispersal of Pollutants into the environment.

D. Use equipment that conforms to current Federal, State, and local laws and regulations.

3.12 PEST AND RODENT CONTROL

- A. Provide rodent and pest control as necessary to prevent infestation of construction or storage areas.
- B. Employ methods and use materials that will not adversely affect conditions at site or on adjoining properties.

3.13 NOISE CONTROL

- A. Provide vehicles, equipment, and use construction activities that minimize noise to the greatest degree practicable. Conform to noise levels of Chapter 54, Article IV - Noise, City Code of Ordinances, and latest OSHA standards. Do not permit noise levels to interfere with the Work or create a nuisance to surrounding areas.
- B. Conduct construction operations during daylight hours except as approved by the Project Manager as specified in Section 1-40 Paragraph 1-13.
- C. Select construction equipment that operates with minimum noise and vibration. When directed by the Project Manager, correct objectionable noise or vibration produced by operation of equipment at no additional cost to the City.
- D. Sound Power Level (PWL) of equipment shall not exceed levels as specified in Chapter 54, Article IV, Section 54-95, City Code of Ordinances. Equipment noise requirements are contained in equipment specifications.

3.14 DUST CONTROL

- A. Use water or other methods approved by the Project Manager to control amount of dust generated by vehicle and equipment operations.

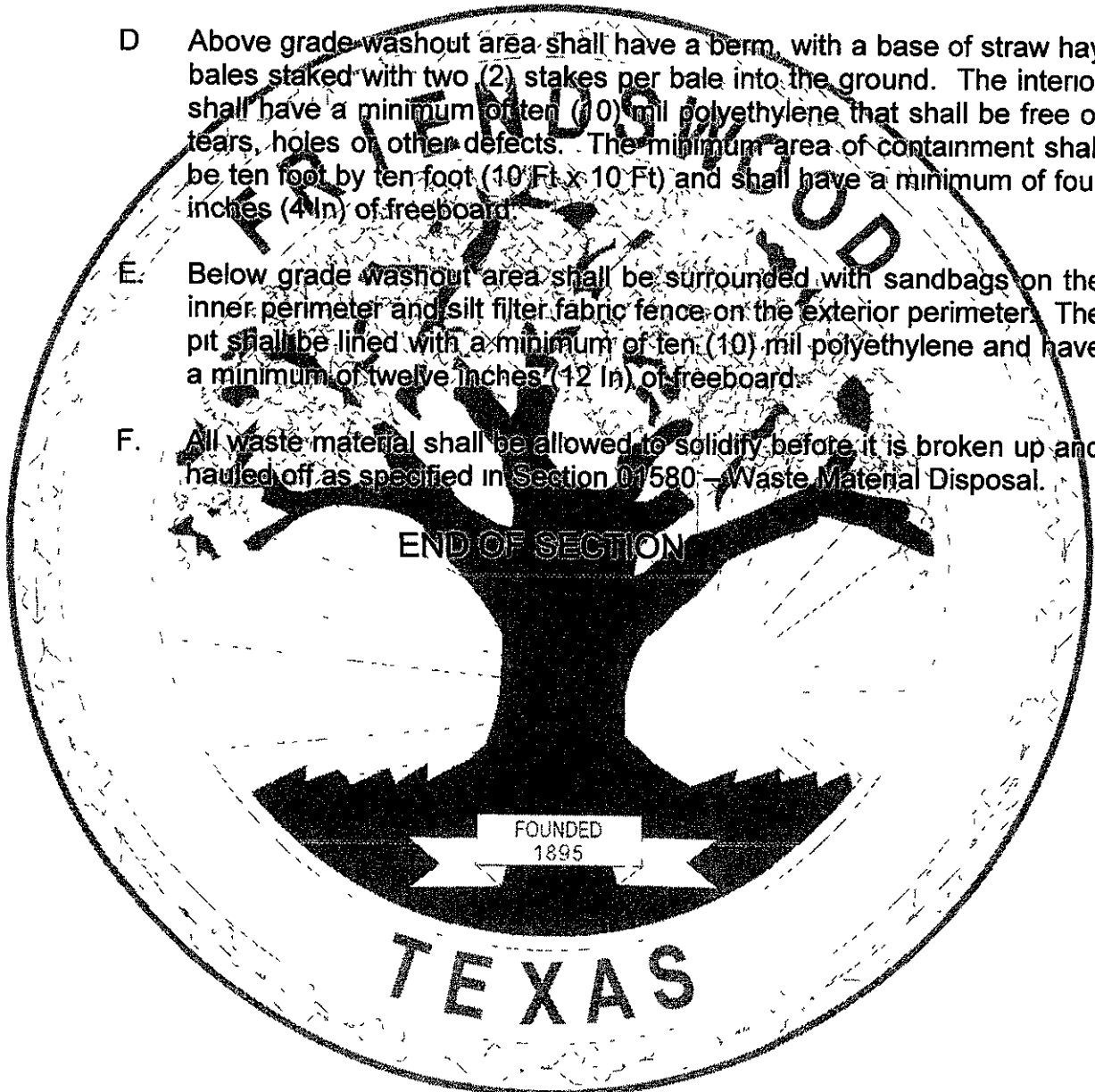
3.15 WATER RUNOFF AND EROSION CONTROL

- A Comply with requirements of section 01410 -TPDES Requirements
- B Conduct fill, grading and ditching operations and provide adequate methods necessary to control surface water, runoff, subsurface water, and water from excavations and structures in order to prevent damage to the Work, the site, or adjoining properties
 - 1 Plan and execute construction and earthwork by methods that control surface drainage from cuts and fills, and from borrow and waste disposal areas.
 - 2 Minimize area of bare soil exposed at one (1) time.
 - 3 Provide temporary control measures, such as berms, dikes, and drains.
 - 4 Provide, operate, and maintain equipment and facilities of adequate size to control surface water.
 - 5 Construct fill and waste areas by selective placement of materials to eliminate erosion of surface silts or clays that may erode.
 - 6 Direct water away from excavations, pits, tunnels, and other construction areas to prevent erosion, sedimentation, or damage.
 - 7 Maintain existing drainage patterns adjacent to the site by constructing temporary earth berms, sedimentation basins, retaining areas, and temporary ground cover.
 - 8 Dispose of drainage water in a manner to prevent flooding, erosion, or other damage to the site or adjoining areas, in conformance with environmental requirements.
 - 9 Inspect earthwork periodically to detect any evidence of erosion. Take corrective measures as required to control erosion.

3.16 CONCRETE WASHOUT PITS

- A. Temporary concrete washout facilities shall be located a minimum of fifty feet (50 Ft) from storm drain inlets, open drainage facilities and water courses. Each facility shall be located away from construction traffic or access to prevent disturbance or tracking.

- B. A sign shall be installed to inform concrete equipment operators, truck drivers and finishers to utilize proper facilities
- C. Temporary washout facilities shall have a temporary pit or bermed area sufficient to completely contain all liquid and waste materials generated during the washout procedures.
- D. Above grade washout area shall have a berm, with a base of straw hay bales staked with two (2) stakes per bale into the ground. The interior shall have a minimum of ten (10) mil polyethylene that shall be free of tears, holes or other defects. The minimum area of containment shall be ten foot by ten foot (10 Ft x 10 Ft) and shall have a minimum of four inches (4 in) of freeboard.
- E. Below grade washout area shall be surrounded with sandbags on the inner perimeter and silt filter fabric fence on the exterior perimeter. The pit shall be lined with a minimum of ten (10) mil polyethylene and have a minimum of twelve inches (12 in) of freeboard.
- F. All waste material shall be allowed to solidify before it is broken up and hauled off as specified in Section 01580 – Waste Material Disposal.



SECTION 01510

DIVERSION PUMPING

PART I: GENERAL

1.1 DEFINITIONS

- A Diversion-pumping. Installation and operation of bulkheads, plugs, hoses, piping, and pumps required to maintain sewer flow and prevent backups and overflows.

1.2 SYSTEM DESCRIPTION

- A Provides continuous sewer service to users of sewer systems while maintenance or construction operations are in progress, by diverting flow around construction locations. Maintain sewer flow to prevent backup or overflow onto streets, yards and unpaved areas or into buildings, adjacent ditches, storm sewers and waterways. Do not divert sewage outside of sanitary sewer system.
- B. When pumps are operating, have an experienced operator on site to monitor operation, adjust pumps, make minor repairs to system, and report problems.

1.3 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures.
- B For systems that bypass sanitary sewer line segments of forty-two inch (42 in) diameter or larger, submit a Diversion Pumping Plan prior to installation. Show location, number and size of pumps, number, location, size and type of hoses or rigid piping, and location of downstream discharge, and special features where pipes or hoses cross roadways, temporary trenches, support bridges.

1.4 SCHEDULING

- A When the City operates or maintains diversion pumping in construction areas, coordinate construction activities with the Project Manager.
- B Cease operation of diversion pumping when approved by the Project Manager

1.5 REFERENCES

- A CFCO – City of Friendswood Code of Ordinances.
 - 1 Chapter 54, Article IV.
- B CFTS – City of Friendswood Technical Specifications
 - 1 Section 01330 – Submittal Procedures
- C. EPA – Environmental Protection Agency.
- D. TCEQ – Texas Commission on Environmental Quality.

PART II: PRODUCTS

2.1 MATERIALS

- A Design piping, joints and accessories to withstand at least twice maximum system pressure or fifty pounds per square inch (50 psi), whichever is greater.
- B Use self-priming type or submersible electric pumps with a working pressure gauge on the discharge. Pumps shall meet requirements of City of Friendswood Noise Ordinance.

PART III: EXECUTION

3.1 FIELD QUALITY CONTROL

- A During diversion pumping, do not allow sewage to leak, dump, or spill into or onto areas outside of existing sanitary sewer systems.
- B In the event of an accidental spill or overflow, immediately stop discharge and take action to clean up and disinfect spill. Promptly notify the Project Manager so required reporting can be made to the Texas Commission on Environmental Quality (TCEQ) and the Environmental Protection Agency (EPA).

3.2 CLEANING

- A When diversion-pumping operations are complete, drain sewage within piping into sanitary sewers prior to disassembly.

END OF SECTION

SECTION 01520

TEMPORARY FIELD OFFICE

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Temporary field office building and associated parking area

1.2 FACILITY DESCRIPTION

- A Temporary field office to be utilized by authorized representatives of the City to coordinate and monitor daily construction activities performed by the Contractor.
- B Field office shall be a non-smoking facility.

1.3 REFERENCES

- A. CPTS – City of Friendswood Technical Specifications
 - 1. Section 01770 – Closeout Procedures

PART II PRODUCTS

2.1 FIELD OFFICE

- A. General
 - 1. Locate office in vicinity of the Work at a location approved by the Project Manager or where indicated on the Drawings
 - 2. Furnish, install and maintain field office for exclusive use of authorized representatives of the City. Provide sufficient room for Project meetings and Project Manager's office
 - 3. Provide office within ten days (10 D) of Date of Commencement of the Work.
 - 4. Construct two (2) all-weather, hard surfaced parking spaces for exclusive use of authorized representatives of the City. Provide all-weather surfaced walk between parking spaces and field office

B Minimum Construction.

- 1 Structurally sound foundation and superstructure.
- 2 Weather tight with insulated roof, walls and seven foot (7 Ft) ceiling (minimum)
- 3 Stairs or walkway with handrail and covered entrance platform [minimum four-feet-by-four-feet (4 Ft x 4 Ft)] with mud scraper at door.

4 Resilient floor covering

- 5 Screened windows with area equal to approximately ten percent (10%) of floor area sufficient for light, view of the site, and ventilation. Provide each window with operable sash and burglar bars.

- 6 Secure exterior doors with dead-bolt cylinder locks and burglar bars.

C Minimum Services:

1. Exterior entrance light.

2. Interior lighting of seventy-five foot-candles (75 fc) minimum at desktop height.

- 3 Automatic heating to maintain sixty-five degrees Fahrenheit (65° F) in winter.

4. Automatic cooling to maintain seventy-five degrees Fahrenheit (75° F) in summer.

5. Electric power service.

6. Two (2) telephone service lines one (1) for voice, one (1) for data/fax, for exclusive use of authorized representatives of the City.

7. Sanitary facilities in field office with one (1) water closet, one (1) lavatory, and one (1) medicine cabinet for exclusive use of authorized representatives of the City.

D Minimum Furnishings

- 1 One (1) – five (5) drawer desk

2. Two (2) swivel desk chairs with casters.
3. One (1) plan table
4. One (1) drawing plan rack.
5. One (1) – four (4) drawer legal file cabinet complete with fifty (50) legal-size hanging folders and two (2) full-sized carriers
6. One (1) marker board with cleaner and markers
7. Two (2) waste baskets.
8. One (1) thirty inch by thirty-six (30 in x 36 in) tack board
9. One (1) all-purpose fire extinguisher
10. Six (6) protective helmets (hard hats) with ratchet adjustment for exclusive use of authorized representatives of the City
11. Conference table and chairs to accommodate ten (10) persons.
12. Telephone instrument

- E. Provide adequate space for one (1) set of Contract Documents for ready reference.

PART III: EXECUTION

3.1 MAINTENANCE

- A. Maintain all-weather surface, driveway and parking areas, buildings, walkways, stairs and required furnishings and equipment for duration of the Contract.
- B. Provide janitorial services for duration of the Contract consisting of twice weekly sweeping and mopping floors, trash removal, weekly restroom cleaning, and weekly dusting of furniture and equipment
- C. Provide soap, paper towels, toilet paper, cleansers and other necessary consumables
- D. Immediately repair damage, leaks or defective service

3.2 PROJECT CLOSEOUT

- A Remove temporary field office and signs and restore site as specified in Section 01770 – Closeout Procedures.

END OF SECTION



SECTION 01555

TRAFFIC CONTROL AND REGULATION

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Requirements for signs, signals, control devices, traffic barriers, flares, lights and traffic signals, construction parking control, designated haul routes, and bridging of trenches and excavations.
- B. Qualifications and requirements for use of flagmen.

1.2 MEASUREMENT AND PAYMENT

A Unit Price Contracts

1. Traffic control and regulation. Payment for traffic control and regulation is on a lump sum basis. Include preparation and submittal of traffic control plan, if different than shown on the Drawings, and provision of traffic control devices, equipment, and personnel necessary to protect the Work and the public. Payment will be based on the Contractor's Schedule of Values for traffic control and regulation.
2. Flagmen. Payment for flagmen is on a lump sum basis. Partial payments will be based on the Contractor's Schedule of Values for flagmen.
3. New Portable Concrete Low Profile Traffic Barrier Provided: Payment is on a unit price basis for each linear foot of low profile traffic barrier provided, installed with hardware assemblies and connected together in accordance with the approved traffic control plan.
4. Portable Concrete Low Profile Traffic Barrier Installed: Payment is on a unit price basis for each linear foot of low profile traffic barrier delivered to the project location, installed with hardware assemblies and connected together in accordance with the approved traffic control plan.
5. Portable Concrete Low Profile Traffic Barrier Moved and Reset: Payment is on a unit price basis for each linear foot of low profile traffic barrier disassembled, moved on the project, reset

at the new locations and connected together Include cost to repair roadway in the unit price

6. Portable Concrete Low Profile Traffic Barrier Removed: Payment is on a unit price basis for each linear foot of low profile traffic barrier removed from the project, including hardware assemblies, and stockpiling at location listed in Section 01110 – Summary of Work Include cost to repair roadway in the unit price.

7. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B. Stipulated Price Contracts.

1. Include payment for work under this Section in the Total Stipulated Price.

1.3 REFERENCES

A. CFTS – City of Friendswood Technical Specifications.

1. Section 01110 – Summary of Work
2. Section 01270 – Measurement and Payment.
3. Section 01330 – Submittal Procedures

B. TCCP – Texas Code of Criminal Procedure.

1. Article 2.12, Texas Code of Criminal Procedure

C. TMUTCD – Texas Manual on Uniform Traffic Control Devices.

D. TVCAS – Texas Vernon's Civil Annotated Statutes

1. Article 4413 (29b5), commonly referred to as Private Investigators and Private Security Agencies Act.

1.4 SUBMITTALS

A. Conform to requirements of Section 01330 - Submittal Procedures

B. Traffic control plan

1. If using traffic control plan contained in the Contract without modification, submit a letter confirming use of the plan.

2. If using a different traffic control plan, submit the plan for approval. The plan must conform to TMUTCD requirements and be sealed by a Professional Engineer licensed by the State of Texas.

- C Submit records verifying qualifications of Uniformed Peace Officers and Certified Flagmen proposed for use on the Work.

1.5 FLAGMEN

- A. Use Uniformed Peace Officers and Certified Flagmen to control movement of vehicular and pedestrian traffic when construction operations encroach on public traffic lanes.

- B. Uniformed Peace Officer: Individual employed full-time as a peace officer who receives separate compensation as a privately employed flagman. Private employment may be an employee-employer relationship or on an individual basis. Flagman may not be in the employ of another peace officer nor be a reserve peace officer.

1. Uniformed Peace Officers may be:

- a. Sheriffs and their deputies;
- b. Constables and deputy constables;
- c. Marshals or police officers of an incorporated city, town or village; or
- d. as otherwise provided by Article 2.12, Code of Criminal Procedure.

2. The Uniformed Peace Officer must be a full-time peace officer, must work a minimum average of thirty-two (32) paid hours per week, and must be paid a rate not less than the prevailing minimum hourly wage rate set by the federal Wage and Hour Act. The individual must be entitled to vacation, holidays, and insurance and retirement benefits.

- C Certified Flagman: Individual who receives compensation as a flagman and meets the following qualifications:

1. Formally trained and certified in traffic control procedures.
2. Shall speak English fluently. Ability to speak Spanish is desirable but not required.

- 3 Paid for flagman duty at an hourly rate not less than the wage rate set for Rough Carpenter under the City's Wage Scale for Engineering Construction

- D Certified Flagmen must wear a distinctive uniform, bright-colored vest, and be equipped with appropriate flagging and communication devices while at the Work site. They must also have in their possession while on duty, a proof of training identification card issued by the appropriate training institute.

PART II: PRODUCTS

2.1 SIGNS, SIGNALS, AND DEVICES

- A Comply with TMUTCD requirements
- B Traffic cones and drums, flares and lights. Conform to local jurisdictions' requirements.

2.2 PORTABLE LOW PROFILE CONCRETE BARRIERS

- A The low profile concrete barrier is a patented design. Information concerning this barrier may be obtained from Texas Transportation Institute, Texas A&M University System, College Station, Texas 77843-3135, (409) 845-1712.

PART III: EXECUTION

3.1 PUBLIC ROADS

- A. Submit requests forms for lane closure and sidewalk closure to the City's Community Development Department at least three working days (3 WD) prior to need for blocking vehicular lanes or sidewalks. Do not block lanes or sidewalks without approved permits
- B Follow laws and regulations of governing jurisdictions when using public roads. Pay for and obtain permits from jurisdiction before impeding traffic or closing lanes. Coordinate activities with the Project Manager.
- C Give the Project Manager one week (1 Wk) notice before implementing approved traffic control phases. Inform local businesses of impending traffic control activities
- D Notify police department, fire department, local schools, churches,

and businesses in writing a minimum of five working days (5 wD) prior to beginning work.

- E. Maintain ten foot (10 Ft) wide all-weather lanes adjacent to the Work for emergency vehicle use. Keep all-weather lanes free of construction equipment and debris.
- F. Do not obstruct normal flow of traffic from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. on designated major arterials or as directed by the Project Manager.
- G. Maintain local driveway access to residential and commercial properties adjacent to work areas at all times. Use all-weather materials approved by the Project Manager to maintain temporary driveway access to commercial and residential driveways.
- H. Keep streets entering and leaving job site free of excavated material, debris, and foreign material resulting from construction operations in compliance with applicable ordinances.
- I. Remove existing signage and striping that conflict with construction activities or that may cause driver confusion.
- J. Provide safe access for pedestrians along major cross streets.
- K. Alternate closures of cross streets so that two (2) adjacent cross streets are not closed simultaneously.
- L. Do not close more than two (2) consecutive esplanade openings at a time without prior approval from the Project Manager.

3.2 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to prevent interference with public traffic and parking, access by emergency vehicles, and the City's operations.
- B. Monitor parking of construction personnel's vehicles in existing facilities. Maintain vehicular access to and through parking areas.
- C. Prevent parking on or adjacent to access roads or in non-designated areas.

3.3 FLARES AND LIGHTS

- A. Provide flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.

3.4 HAUL ROUTES

- A Utilize haul routes designated by authorities or shown on the Drawings for construction traffic
- B Confine construction traffic to designated haul routes.
- C Provide traffic control at critical areas of haul routes to regulate traffic and minimize interference with public traffic.

3.5 TRAFFIC SIGNS AND SIGNALS

- A Construct necessary traffic control devices for temporary signals required to complete the Work including loop detectors, traffic signal conduits, traffic signal wiring and crosswalk signals.
- B Install and operate traffic control signals to direct and maintain orderly traffic flow in areas under the Contractor's control affected by the Contractor's operations. Post notices, signs and traffic controls before moving into next phase of traffic control.
- C Relocate traffic signs and signals as the Work progresses to maintain effective traffic control.
- D Unless otherwise approved by the Project Manager, provide driveway signs with name of business that can be accessed from each crossover. Use two (2) signs for each crossover.
- E Replace existing traffic control devices in the work area.
- F The Project Manager may direct the Contractor to make minor adjustments to traffic control signage to eliminate driver confusion and maintain orderly traffic flow during construction at no additional cost to the City.

3.6 BRIDGING TRENCHES AND EXCAVATIONS

- A When necessary, construct bridges over trenches and excavation to permit an unobstructed flow of traffic across construction areas and major drives. Use steel plates of sufficient thickness to support H-20 loading and install to operate with minimum noise
- B Shore trench or excavation to support bridge and traffic.
- C Secure bridging against displacement with adjustable cleats, angles, bolts or other devices when:

- 1 bridging is placed over existing bus routes,
- 2 more than five percent (5%) of daily traffic is comprised of commercial or truck traffic,
3. more than two (2) separate plates are used for bridging, and
- 4 when bridge is to be used for more than five (5) consecutive days

D. Extend steel plates used for bridging a minimum of one foot (1 Ft) beyond edges of trench or excavation. Use temporary paving materials such as premix to feather edges of plates to minimize wheel impact on secured bridging.

3.7 REMOVAL

- A. Remove equipment and devices when no longer required.
- B. Repair damage caused by installation.
- C. Remove post settings to a depth of two feet (2 Ft)

3.8 TRAFFIC CONTROL, REGULATION AND DIRECTION

- A. Use Flagmen to control, regulate and direct an even flow and movement of vehicular and pedestrian traffic, for periods of time as may be required to provide for public safety and convenience, where:
 1. multi-lane vehicular traffic must be diverted into single lane vehicular traffic,
 2. vehicular traffic must change lanes abruptly,
 3. construction equipment must enter or cross vehicular traffic lanes and walks,
 4. construction equipment may intermittently encroach on vehicular traffic lanes and unprotected walks and crosswalks,
 5. traffic regulation is needed due to rerouting of vehicular traffic around the work site, and
 6. where construction activities might affect public safety and convenience

- B Use of Flagmen to assist in the regulation of traffic flow and movement does not relieve the Contractor of responsibility to take other means necessary to protect the Work and the public.
- C Flagmen shall use stop/slow signs to regulate traffic around construction areas. Flags shall not be allowed, unless flagmen are trained in the proper use and techniques.

3.9 INSTALLATION STANDARDS

- A Place temporary pavement for single lane closures, in accordance with TMUTCD.
- B Reinstall temporary and permanent pavement markings as approved by the Project Manager. When weather conditions do not allow application according to manufacturer's requirements, alternate markings may be considered. Submit proposed alternate to the Project Manager for approval prior to installation. No additional payment will be made for use of alternate markings.

3.10 MAINTENANCE OF EQUIPMENT AND MATERIAL

- A Submit name, address and telephone number of individual designated to be responsible for maintenance of traffic handling at construction site to the Project Manager. Individual must be accessible at all times to immediately correct deficiencies in equipment and materials used to handle traffic including missing, damaged, or obscured signs, drums, barricades, or pavement markings.
- B Inspect signs, barricades, drums, lamps and temporary pavement markings daily to verify that they are visible, in good working order, and conform with traffic handling plans as approved by the Project Manager. Immediately repair, clean, relocate, realign, or replace equipment or materials that are not in compliance.
- C Keep equipment and materials, signs and pavement markings, clean and free of dust, dirt, grime, oil, mud, or debris.
- D Obtain approval of the Project Manager to reuse damaged or vandalized signs, drums, and barricades.

END OF SECTION

SECTION 01560

TREE AND PLANT PROTECTION

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Tree and plant protection and maintenance.
- B. Planting new trees and relocating and replanting existing trees.
- C. Maintenance of planted or replanted trees.

1.2 SUBMITTAL

- A. Conform to requirements of Section 01330 – Submittal Procedures.
- B. Submit name and experience of qualified Arborist, proposed for use on the Work, to the Project Manager.

1.3 PROJECT CONDITIONS

- A. Preserve and protect existing trees and plants that are to remain; from damage to foliage, branches, trunk, or roots; that could result from construction operations.
- B. Do not remove any Tree unless Parks and Recreation Department grants written permission for removal. Prevent following types of damage:

1. **FOUNDED**
Compaction of root zone by foot, vehicular traffic, or material storage.
2. Trunk damage from equipment operations, material storage, or from nailing or bolting.
3. Trunk and branch damage caused by ropes or guy wires
4. Root poisoning from spilled solvents, gasoline, paint, and other noxious materials.
5. Branch damage due to improper pruning or trimming
6. Damage from lack of water due to

- a Cutting or altering natural water migration patterns near root zones.
 - b Failure to provide adequate watering
7. Damage from alteration of soil pH factor caused by depositing lime, concrete, plaster, or other base materials near roots
8. Cutting of roots larger than one and one-half inches (1-1/2 in) in diameter

1.4 DAMAGE ASSESSMENT

- A. When a tree, other than those permitted for removal, are destroyed or badly damaged as result of construction operations, remove and replace with same size, species, and variety. Replace trees larger than eight inches (8 in) in diameter with an eight inch (8 in) diameter tree of same species and variety.
- B. Contract Price shall be reduced by the amount determined by Parks and Recreation Department if the tree is not replaced.

1.5 REFERENCES

- A. CFTS – City of Friendswood Technical Specifications:
- 1. Section 01330 – Submittal Procedures.
 - 2. Section 01565 – Authorized Tree List
- B. ISA – International Society of Arboriculture

PART II PRODUCTS

2.1 MATERIALS

- A. Asphalt Paint: Emulsified asphalt or other adhesive, elastic, antiseptic coating formulated for horticultural use on cut or injured plant tissue, free from kerosene and coal creosote.
- B. Burlap. Suitable for use as tree wrapping.
- C. Fertilizer. Liquid containing twenty percent (20%) nitrogen, ten percent (10%) phosphorus and five percent (5%) potash
- D. Obtain the Project Manager's approval of replacement trees

PART III EXECUTION

3.1 PROTECTION AND MAINTENANCE OF EXISTING TREES AND SHRUBS

- A Trees within the Project area, except for trees shown on the Drawings or directed by the Project Manager to be removed and relocated, are to remain in place. Protect from damage and maintain trees that are to remain.
- B Perform the following for trees or shrubs that are to remain:
 - 1 Trim trees and shrubs under supervision of a professional tree surgeon or horticulturist.
 - a. Prune trees according to International Society of Arboriculture specifications.
 - b. Prune trees and shrubs requiring pruning for construction operations for balance and to maintain proper form and branching habit.
 - c. Cut limbs at branch collar and remove stubs. Do not gouge outer layer of tree structure or trunk.
 - d. Prior to construction, prune all trees to remain of new or recent growth to maintain basic branching form of trees. Base extent of pruning upon proximity of pavement to trunk and size of tree blockouts and requirements of construction adjacent to tree.
 - e. Limit pruning of young branches to the maximum extent possible. Maintain older branches that provide basic form of tree. Prune in the presence of the Project Manager.
 - f. Paint exposed, living tissue of cuts over three-quarters inch (3/4 in) in diameter with tree paint.
 - 2 Use extreme care to prevent excessive damage to root systems.
 - a. Cut tree roots in construction area smoothly with a trencher before excavating. Do not allow ripping of roots with backhoes or other equipment.
 - b. Temporarily cover exposed roots with wet burlap to prevent roots from drying out.

- c. Cover exposed roots with soil as soon as possible
- 3. Prevent damage or compaction of root zone (area below drip line) by construction activities.
 - a. Do not allow equipment to scar trunks or limbs.
 - b. Do not store construction materials, vehicles, or excavated material under drip line of trees
 - c. Do not pour liquid materials under drip line.
- 4. Water and fertilize remaining trees and shrubs to maintain their health during construction period.
 - a. Water landscaping during construction operations at least once every seven days (7 D) in cold months and once every four days (4 D) in hotter months
 - b. Saturate soils to at least six inches (6 In) to eight inches (8 In) beneath surface
- 5. Water areas currently being served by private sprinkler systems while systems are temporarily taken out of service to maintain health of existing landscapes.
- 6. With the Project Manager's permission, shrubs to remain may be temporarily transplanted and returned to original positions under supervision of professional horticulturist

3.2 PROTECTION

A Protection of Trees or Shrubs in Open Area:

- 1. Install steel drive-in fence posts in protective circle, approximately eight feet (8 Ft) on center, not closer than four feet (4 Ft) to trunk of trees or stems of shrubs.
- 2. Insert steel drive-in fence posts a minimum of three feet (3 Ft) into ground, leaving a minimum of five feet (5 Ft) above ground
- 3. Mount fluorescent orange construction fence on fence posts
- 4. For trees or shrubs in paved areas, use movable posts consisting of two one-half inch (2-1/2 In) minimum diameter concrete-filled steel pipe mounted in rubber automobile tires

filled with concrete.

- B Provide timber wrap protection for trees in close proximity to equipment when work is required within construction fencing.

1. Wrap trunk with a layer of burlap.
2. Install vertical five foot (5 Ft) to six foot (6 Ft) long, two inch by four inch (2 In x 4 In) or two inch by five inch (2 In x 5 In) studs, spaced three inches (3 In) to five inches (5 In) apart, around circumference of tree trunk.
3. Tie burlap in place with twelve (12) gauge to nine (9) gauge steel wire.

3.4 RELOCATING AND PLANTING NEW TREES

- A Employ a qualified Arborist, acceptable to the Project Manager, to plant and to move and relocate trees. Arborist must be normally engaged in the field and have a minimum of five years (5 Yrs) experience.
- B. Verify that the trees to be planted are acceptable to the City and listed in Section 01565 - Authorized Tree List.

3.4 MAINTENANCE OF NEWLY PLANTED TREES AND REPLANTED TREES

- A Provide proof of capability to water trees during dry periods.
- B. Maintain newly planted trees, in healthy condition until end of one-year warranty bond.
1. Straighten leaning trees.
 2. Replace dead trees or trees that, in the opinion of the Project Manager, have become unhealthy, unsightly or have lost their natural shape as result of additional growth, improper pruning, maintenance or weather conditions, within four weeks (4 Wks) of notice from the Project Manager.
 3. When a tree must be replaced, a new warranty period shall commence on date of tree replacement, and the Project Manager's approval. Minimum warranty period shall be one year (1 Yr)
 4. Dispose of rejected trees.

END OF SECTION

01560-5

SECTION 01565

AUTHORIZED TREE LIST

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Provide quality and sustainable trees in the City.

1.2 MEASUREMENT AND PAYMENT

- A Unless otherwise stated, there shall be no separate payment for installation of trees, shrubs or bushes.

1.3 REFERENCES

- A. CFDCM – City of Friendswood Design Criteria Manual.
 - 1. Appendix D – Qualified Tree List
- B. CFCO – City of Friendswood Code of Ordinances.
 - 1. Appendix C – Zoning.
- C. CFTS – City of Friendswood Technical Specifications
 - 1. Section 01270 – Measurement and Payment.
 - 2. Section 01330 – Submittal Procedures.
 - 3. Section 02920 – Tree Planting.

1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures
- B. Submit certification from supplier that each type of tree conforms to these specification requirements.
- C. The Design Criteria Manual shall be the final authority of the approved tree list. Substitutions may be submitted as specified in Section 01330 – Submittal Procedures, only after approved by either a Landscape Engineer or Urban Forester and as approved by the Director of Community Development

PART II: PRODUCTS

2.1 GENERAL

- A. Trees are divided into four (4) classes. Class I and Class II trees are considered the most valuable in enhancing the environment and are most likely to prosper in the City and surrounding area. Therefore, only Class I and Class II trees shall be approved as new plantings for:

1. City Parks and property, and
2. parking lots, and
3. streets and other public rights-of-way.

There shall be no exceptions unless approved by the Director of Community Development on the advice of an Urban Forester.

- B. Species that are identified as shade trees shall reach a height and size that will conflict with overhead powerlines or permanent structures, or the canopy will exceed the limits of a confined space.
- C. Species that are identified as small trees will not provide the protection or have the aesthetic impact as the large shade tree, yet they are suitable for planting beneath powerlines and are good alternatives for areas of limited space.

2.2 TREE CLASSIFICATIONS

- A. Class I trees are mostly native to the area, and do very well in Friendswood and surrounding area. They have few disease or pest problems and are easy to find in local nurseries with exceptions (those being the larger size trees).
- B. Class II trees are mostly native, yet still do well in Friendswood and the surrounding area. They have little pest or disease problems, but are harder to find in the nurseries. They are more varied in size and many are more suitable for wildlife. These trees tend to either have larger and messier fruit and/or are thornier than Class I trees. Some of these trees are also prone to some decay at maturity and might do as well in urbanized areas.
- C. Class III trees are more introduced than native species. These trees may or may not do as well in Friendswood and surrounding area. They require more maintenance and care. Natives might be harder to find in a nursery while the introduced species may be more readily available. In some cases this Class of trees are more prone to decay, disease and

pest problems.

- D Class IV trees are exclusively introduced to the Friendswood and the surrounding area. If they do grow well, they have the potential to become an invasive species and cause problems for local ecosystems. These trees are more prone to decay, disease and pest problems.

1. THESE TREES ARE NOT RECOMMENDED FOR PLANTINGS:

2.3 CHARACTERISTICS

A. Location Designations:

1. N – NATIVE: Trees that are common to the local region, that grow naturally.
2. I – INTRODUCED: Trees that are not common to the area and thrive in other regions or areas.

B. Site:

1. 1 – Xerophytic – requires very little or little water.
2. 2 – Mesic – requires moderate water with good drainage.
3. 3 – Aquatic – tolerates poor drainage after established for three years (3 Yrs).

C. Light:

1. 1 – Very intolerant to shade.
2. 2 – Intolerant to shade.
3. 3 – Moderately intolerant to shade.

D. Size

1. 1 – Sixty feet (60 Ft) and greater in ultimate height (large shade tree).
2. 2 – Thirty feet (30 Ft) to Sixty feet (60 Ft) in ultimate height (Medium tree).
3. 3 – Thirty feet (30 Ft) and less in ultimate height (small tree).

E. Foliage:

1. D – DECIDUOUS (sheds leaves annually). If placed on south and west walls, will reduce indoor temperatures in summer by shading the roof and the walls. In winter, these trees allow sunlight through to help heat the house.

2. E – EVERGREEN (having green leaves or needles throughout the year). Can create a windbreak if placed on the Northwest side of the building.

3. SE – SEMI-EVERGREEN.

2.4 TREE CODING

- A. Populating the different Class Tables found in PART IV of this Section, and using the above categories for evaluation of trees and allows the understanding of the tree's parameters. The Live Oak code of 1/N/2/1/1/SE indicates that it is a Class I Tree (1/N/2/1/1/SE) it is native to this area (1/N/2/1/1/SE), it requires moderate water with good drainage (1/N/2/1/1/SE), it demands full sun (1/N/2/1/1/SE), will ultimately grow sixty (60) foot or taller (1/N/2/1/1/SE) and is a Semi-Evergreen type of tree (1/N/2/1/1/SE). As a shade tree the Live Oak will provide protection and have aesthetic impact but the tree is not suitable for planting beneath powerlines, within confined spaces, in streets or other public rights-of-way.

PART III: EXECUTION – NOT USED.

PART IV: TABLES

4.1 CLASS I TREE LIST

FOUNDED
1895

Common Name	Botanical Name	Class	N/I	Site	Light	Size	E/D
Bald Cypress	Taxodium distichum	1	N	2,3	2	1	D
Bur Oak	Quercus macrocarpa	1	N	2	1	1	D
Cedar Elm	Ulmus crassifolia	1	N	2	1	2	D
Drummond Red Maple	Acer rubrum var. drummondii	1	N	2	1	2	D
Eastern Redbud	Cercis Canadensis	1	N	2	2	2	D
Live Oak	Quercus virginiana	1	N	2	1	1	SE
Overcup Oak	Quercus lyrata	1	N	2,3	1	1	D
Pecan	Carya illinoensis	1	N	2	1	1	D
Possumhaw Holly	Ilex decidua	1	N	2	1,2	3	D
Shumard Red Oak	Quercus shumardii	1	N	2	1	1	D
Southern Magnolia	Magnolia grandiflora	1	N	2,3	1	1	E
Swamp Chestnut Oak	Quercus michauxii	1	N	2,3	1	1	D
Sweet-Bay Magnolia	Magnolia virginiana	1	N	2	2	2	E
Wax Myrtle	Myrica cerifera	1	N	2,3	1	3	E

4.2 CLASS II TREE LIST

Common Name	Botanical Name	Class	N/I	Site	Light	Size	E/D
American Elm	Ulmus Americana	2	N	2	1	1	D
American Sycamore	Plantus occidentalis	2	N	2	1	1	D
Anacua/Sandpaper Tree	Ehretia anacua	2	N	2	1	2	E
Arrow-wood Viburnum	Viburnum dentatum	2	N	2	2	3	D
Black Hickory	Carya texana	2	N	2	1,2	2	D
Black Walnut	Juglans nigra	2	N	2	1,2	1	D
Blackgum	Nyssa sylvatica	2	N	2,3	1,2	3	D
Callery Pear/Bradford	Pyrus calleryana	2	I	2	1	3	D
Carolina buckthorn	Rhamnus caroliniana	2	N	2	1,2	3	D
Chalk Maple	Acer leucoderme	2	N	2	2	2	D
Cherry Laurel	Prunus caroliniana	2	N	2	2	2	E
Chinese Elm	Ulmus parvifolia	2	I	2	1	2	D
Chinquapin Oak	Quercus muhlenbergii	2	N	2	1	1	D
Common Crape myrtle	Lagerstroemia indica	2	I	2	1	3	D
Common Fig	Ficus carica	2	I	2	1	3	D
Common Persimmon	Diospyros virginiana	2	N	2	1	2	D
Eastern Red Cedar	Juniperus virginiana	2	N	2	1,2	2	E
Eve's Necklace	Sophora affinis	2	N	1	1	3	D
Green Ash	Fraxinus pennsylvanica	2	N	2,3	1,2	1	D
Huisache	Acacia farnesiana	2	N	1	1	3	D
Loblolly Pine	Pinus taeda	2	N	2	1	1	E
Mexican Plum	Prunus Mexicana	2	N	1	1	3	D
Nuttall Oak	Quercus Nuttalli	2	N	2,3	1	1	D
Ornamental Holly	Ilex spp.	2	I	2	1,2	3	D
Paloverde	Parkinsonia aculeate	2	N	1	2	2	D
Parsley Hawthorn	Crataegus marshalli	2	N	2	2	3	D
Post Oak	Quercus stellata	2	N	2	2	1	D
Red Bay	Persea borbonia	2	N	2	2	2	D
River Birch	Betula nigra	2	N	2,3	2	2	D
Rough-leaf Dogwood	Cornus drummondii	2	N	1,2	3	3	D
Rusty Blackhaw Viburnum	Viburnum rufidulum	2	N	2	2	3	D
Sassafras	Sassafras albidum	2	N	2	2	2	D
Scarlet (Red) Buckeye	Aesculus pavia	2	N	2	2	3	D
Shagbark Hickory	Carya ovata	2	N	2	1	1	D
Slash Pine	Pinus elliotii	2	I	2	1	1	E
Snowbell	Syrinx Americana	2	N	2	1,2	3	D
Southern Red Oak	Quercus falcate var. pagoda	2	N	2	2	1	D
Sweetgum	Liquidambar styraciflua	2	N	2	1	1	D
Texas Mountain Laurel	Sophora secundiflora	2	N	1	1	3	E
Texas Persimmon	Diospyros virginiana (male)	2	N	1	1	3	D
Texas Pistache	Pistacia texana	2	N	1	1	3	D
Texas Redbud	Cercis Canadensis texensis	2	N	1,2	2	3	D
Water Hickory	Carya aquatica	2	N	2,3	1	2	D
Water Oak	Quercus nigra	2	N	2,3	1	1	D
Western Soapberry	Sapindus Drummondii	2	N	2	1	2	D
White Ash	Fraxinus Americana	2	N	2	1	1	D
White Oak	Quercus alba	2	N	2	1	1	D
Willow Oak	Quercus phellos	2	N	2,3	1	1	D
Winged Elm	Ulmus alata	2	N	2	1	2	D
Woolybucket Bumelia	Bumelia lanuginosa	2	N	2	2	2	D
Wright Acacia	Acacia wrightii	2	N	1	1	3	D
Yaupon Holly	Ilex vomitoria	2	N	2	1,2	3	E

4.3 CLASS III TREE LIST

Common Name	Botanical Name	Class	N/I	Site	Light	Size	E/D
American Elderberry	Sambucus Canadensis	3	N	2	2	3	D
American Holly	Ilex opaca	3	N	2	2	2	E
American Hornbeam	Carpinus caroliniana	3	N	2	2	2	D
Black Locust	Robinia pseudocacia	3	N	2,3	1	2	D
Black Willow	Salix nigra	3	N	3	1	2	D
Box-Elder Maple	Acer negundo	3	N	2	2	2	D
Camphor Tree	Cinnamomum camphora	3	I	2	1	2	E
Catalpa	Catalpa bignonioides	3	N	2	1	2	D
Common Pear	Pyrus communis	3	N	2	1	2	D
Eastern Cottonwood	Populus deltoides (male)	3	N	2	1	1	D
Flowering Crabapple	Malus spp.	3	N	2	1	3	D
Hercules-Club Prickly-Ash	Zanthoxylum clava-herculis	3	N	1	1	3	D
Honey-Locust	Gleditsia triacanthos	3	N	2,3	1	2	D
Japanese Yew	Podocarpus macrophyllus	3	I	2	1	2	E
Japanese Maple	Acer palmatum	3	N	2	2	2	D
Loquat	Eriobotrya japonica	3	I	2	2	3	E
Mesquite	Prosopis glandulosa	3	N	1	1	2	D
Mexican Buckeye	Ungnadia speciosa	3	N	1	1	3	D
Red Mulberry	Morus rubra	3	N	2	1	2	D
Sugar Hackberry	Celtis laevigata	3	N	2	1,2	2	D
Vitex	Vitex agnus-castus	3	N	1	1	3	D
Water Tupelo	Nyssa aquatica	3	N	3	2	1	D
Weeping Willow	Salix babylonica	3	I	3	1	2	D

4.4 CLASS IV TREE LIST

Common Name	Botanical Name	Class	N/I	Site	Light	Size	E/D
Arbovitae	Thuja spp.	4	I	2	1,2	2	E
Arizona Ash	Fraxinus velutina	4	I	1	1	2	D
Berlandier Ash	Fraxinus berlandieriana	4	I	1	1	2	D
Chinaberry	Melia azedarach	4	I	2	1	2	SE
Chinese Pistache	Pistacia chinensis	4	I	2	1	2	D
Chinese Tallow	Sapium sebiferum	4	I	2	1,2	3	D
Eucalyptus	Eucalyptus spp.	4	I	2,3	1	3	E
Golden-Raintree	Koelreuteria paniculata	4	I	2	1	2	D
Japanese Black Pine	Pinus thunbergi	4	I	2	1	2	E
Mimosa (Silk tree)	Albizia julibrissin	4	I	1,2	1,2	2	D
Mulberry	Morus alba	4	I	2	1	2	D
Siberian Elm	Ulmus pumila	4	I	1,2	1,2	1	D
Silver Maple	Acer saccharinum	4	I	1,2	1	3	D
Tulip-Tree	Liriodendron tulipifera	4	I	2	1	1	D

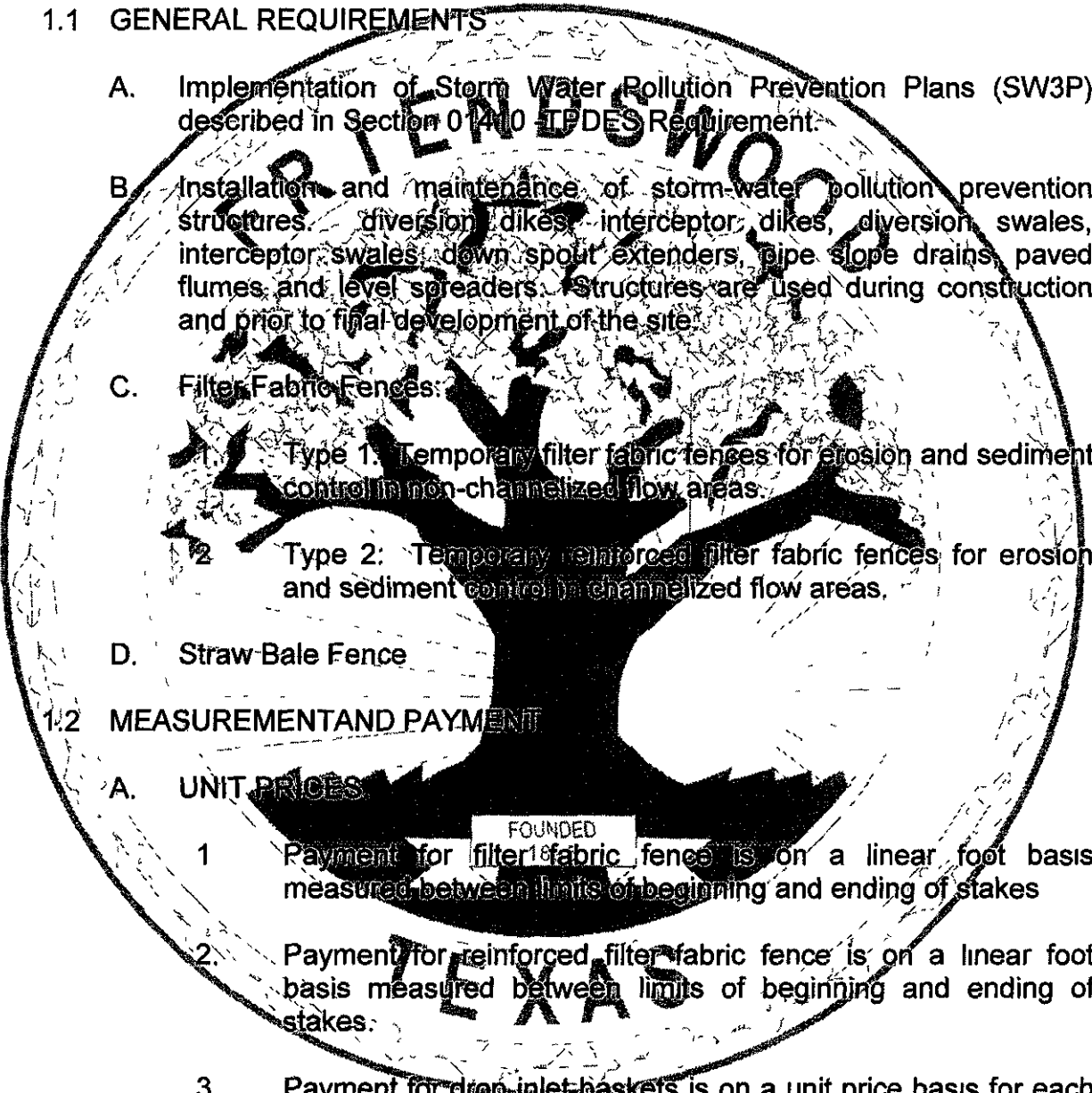
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SECTION 01570

STORM WATER POLLUTION CONTROL

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- 
- A. Implementation of Storm Water Pollution Prevention Plans (SW3P) described in Section 01410 TPDES Requirement.
- B. Installation and maintenance of storm-water pollution prevention structures: diversion dikes, interceptor dikes, diversion swales, interceptor swales, down spout extenders, pipe slope drains, paved flumes, and level spreaders. Structures are used during construction and prior to final development of the site.
- C. Filter Fabric Fences:
1. Type 1: Temporary filter fabric fences for erosion and sediment control in non-channelized flow areas.
 2. Type 2: Temporary reinforced filter fabric fences for erosion and sediment control in channelized flow areas.
- D. Straw Bale Fence

1.2 MEASUREMENT AND PAYMENT

A. UNIT PRICES

1. Payment for filter fabric fence is on a linear foot basis measured between limits of beginning and ending of stakes
2. Payment for reinforced filter fabric fence is on a linear foot basis measured between limits of beginning and ending of stakes.
3. Payment for drop inlet baskets is on a unit price basis for each drop inlet basket.
4. Payment for storm inlet sediment traps is on a unit price basis for each storm inlet sediment trap
5. Payment for storm-water-pollution-prevention structures is on a lump sum basis for the project. Earthen structures with outlet

and piping includes diversion dikes, interceptor dikes, diversion swales, interceptor swales, and excavated earth-outlet sediment trap, embankment earth-outlet sediment trap, down spout extenders, pipe slope drains, paved flumes, stone outlet sediment trap, and level spreaders

6. Payment for straw bale barrier, if included in Document 00300 – Unit Price Form, is on a linear foot of accepted bale barriers, if not include in cost of storm water pollution prevention structures.

7. Payment for brush berm, if included in Document 00300 – Unit Price Form, is on a linear foot of accepted brush berm, if not include in cost of storm water pollution prevention structures

8. Payment for sandbag barrier, if included in Document 00300 – Unit Price Form, is on a linear foot basis measured between limits of beginning and ending of sandbags, if not include in cost of storm water pollution prevention structures.

9. Payment for sediment basin with pipe outlet or stone outlet, if included in Document 00300 – Unit Price Form, is on a square yard basis, if not include in cost of storm water pollution prevention structures.

10. Payment for inlet protection barriers, if included in Document 00300 – Unit Price Form, is on a linear foot basis measured along outside face of inlet protection barrier, if not include in cost of storm water pollution prevention structures.

11. Refer to Section 01270 – Measurement and Payment for unit price procedures.

- B. Stipulated Price (Lump Sum) Contract. If Contract is Stipulated Price Contract, payment for Work in this Section is included in Total Stipulated Price.

13 REFERENCE STANDARDS

- A. ASTM – American Society for Testing and Materials.

1. A36 – Standard Specification for Carbon Structural Steel
2. D698 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³))

- 3 D3786 – Standard Test Method for Hydraulic Bursting Strength for Knitted Goods and Nonwoven Fabrics
- 4 D4355 – Standard Test Method for Deterioration of Geotextiles from Exposure to Ultraviolet Light and Water (Xenon-Arc Type Apparatus)
5. ~~D4491 – Standard Test Methods for Water Permeability of Geotextiles by Permittivity.~~
- 6 ~~D4632 – Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.~~
- 7 ~~D4833 – Standard Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products~~
8. ~~D6382 – Standard Practice for Dynamic Mechanical Analysis and Thermogravimetry of Roofing and Waterproofing Membrane Material.~~

B City of Friendswood Storm Water Management Plan manual

C. City of Friendswood Technical Specifications.

1. Document 00300 – Unit Price Form
2. Section 01270 – Measurement and Payment.
3. Section 01330 – Submittal Procedures
4. ~~Section 01410 – TPDES Requirements.~~
5. ~~Section 01505 – Temporary Facilities and Controls~~
6. ~~Section 01560 – Tree and Plant Protection.~~
7. ~~Section 01575 – Stabilized Construction Exit.~~
8. Section 01580 – Waste Material Disposal.
9. Section 02100 – Clearing and Grubbing.
10. Section 02125 – Excavation and Backfill for Utilities.
11. Section 02135 – Excavation for Roadway.
12. Section 02140 – Utility Backfill Materials

- 13. Section 02210 – Corrugated Metal Pipe (CMP).
- 14. Section 02220 – High Density Polyethylene Pipe (HDPE)
- 15. Section 02235 – Polyvinyl Chloride Pipe (PVC).
- 16. Section 03300 – Structural Concrete

1.4 SYSTEM DESCRIPTIONS

- A. Filter Fabric Fence Type 1 and Type 2. Install to allow surface or channel runoff percolation through fabric in sheet-flow manner and to retain and accumulate sediment. Maintain Filter Fabric Fences to remain in proper position and configuration at all times.
- B. Straw Bale Fence. Install to allow surface runoff percolation through straw in sheet-flow manner and to retain and accumulate sediment. Maintain Straw Bale Fence to remain in proper position and configuration at all times.
- C. Interceptor Dikes and Swales. Construct to direct surface or channel runoff around the project area or runoff from the project area into sediment traps.
- D. Drop Inlet Baskets: Install to allow runoff percolation through the basket and to retain and accumulate sediment. Clean accumulation of sediment to prevent clogging and backups.
- E. Sediment traps. Construct to pool surface runoff from construction area to allow sediment to settle onto the bottom of trap.

1.5 SUBMITTALS

- A. Conform to requirements of Section 01330 -Submittal Procedures.
- B. Submit manufacturer's literature for product specifications and installation instructions.
- C. Submit manufacturers catalog sheets and other product data on geotextile or filter fabrics, outlet pipe, perforated riser and connectors.
- D. Submit proposed methods, equipment, materials, and sequence of operations for storm-water pollution prevention structures.
- E. Submit shop drawings for Drop Inlet Baskets.

PART II: PRODUCTS

2.1 CONCRETE

- A. Concrete: Class A in accordance with Section 03300 – Concrete for Utility Construction or as shown on the Drawings.

2.2 AGREGATE MATERIALS

- A. Use poorly graded cobbles with diameter greater than three inches (3 In) and less than five inches (5 In).
- B. Provide gravel lining in accordance with Section 2140 – Utility Backfill Materials or as shown on the Drawings.
- C. Provide clean cobbles and gravel consisting of crushed concrete or stone. Use clean, hard crushed concrete or stone free from adherent coatings, salt, alkali, dirt, clay, loam, shale, soft or flaky materials, or organic matter.
- D. Sediment Pump Pit Aggregate: Use nominal two inch (2 In) diameter river gravel.

2.3 PIPE

- A. Polyethylene culvert pipe or PVC sewer pipe in accordance with Section 02220 – High Density Polyethylene (HDPE) Solid and Profile Wall Pipe and Section 02235 – Polyvinyl Chloride Pipe (PVC) or as shown on the Drawings.
- B. Inlet Pipes: Galvanized steel pipe in accordance with Section 02210 – Corrugated Metal Pipe (CMP) or as shown on the Drawings.
- C. Standpipe for Sediment Pump Pits: Galvanized round culvert pipe or round PVC pipe, a minimum of twelve inch (12 In) and a maximum of twenty-four inch (24 In) diameter, perforate at six inch (6 In) to twelve inch (12 In) centers around circumference.

2.4 GEOTEXTILE FILTER FABRIC

- A. Woven or nonwoven geotextile filter fabric made of either polypropylene, polyethylene, ethylene, or polyamide material, in continuous rolls of longest practical length
- B. Grab Strength: one hundred pounds per square inch (100 psi) in any principal direction (ASTM D4632), Mullen burst strength > two hundred pounds per square inch (200 psi) (ASTM D3786), and equivalent

opening size between fifty millimeters (50 mm) and one hundred forty millimeters (140 mm).

C Furnish ultraviolet inhibitors and stabilizers for a minimum six months (6 Mos) of expected usable construction life at temperature range of zero degrees Fahrenheit (0° F) to one hundred twenty degrees Fahrenheit (120° F)

D Mirafi, Inc., Synthetic Industries, or equivalent.

2.5 FENCING

A Wire Fencing. Woven galvanized steel wire, fourteen (14) gauge by six inch (6 In) square mesh spacing, a minimum twenty-four inch (24 In) roll or sheet width of longest practical length.

B. Fence Stakes. Nominal two inch by two inch (2 In x 2 In) moisture-resistant treated wood or steel posts [min. of one and one-quarter pounds per linear foot (1.25 Lbs/Lf) and Brinell Hardness greater than one hundred forty (140)] with safety caps on top; length as required for a minimum eight inch (8 In) bury and full height of filter fabric.

2.6 SANDBAGS

A Provide woven material made of polypropylene, polyethylene, or polyamide material.

1. A minimum unit weight of four ounces per square yard (4 Oz/Sy).

2. A minimum grab strength of one hundred pounds per square inch (100 psi) in any principal direction (ASTM D4632)

3. Mullen burst strength exceeding three hundred pounds per square inch (300 psi) (ASTM D3786)

4. Ultraviolet stability exceeding seventy percent (70%)

5. Size

a Length: Eighteen inches (18 In) to twenty-four inches (24 In)

b. Width: Twelve inches (12 In) to eighteen inches (18 In)

c. Thickness: Six inches (6 In) to eight inches (8 In).

- d Weight: Fifty pounds (50 Lbs) to one hundred twenty-five pounds (125 Lbs).

2.7 DROP INLET BASKET

- A. Provide steel frame members in accordance with ASTM A36.
- B. Construct top frame of basket with two (2) short sides of two inch by two inch (2 In x 2 In) and single long side of one inch by one inch (1 In x 1 In), one-eighth inch (1/8 In) angle iron. Construct basket hangers of two inch by one-quarter inch (2 In x 1/4 In) iron bars. Construct bottom frame of one inch by one-quarter inch (1 In x 1/4 In) iron bar or one-quarter inch (1/4 In) plate with center three inches (3 In) removed. Use a minimum one-quarter inch (1/4 In) diameter iron rods or equivalent for sides of inlet basket. Weld a minimum of fourteen (14) rods in place between top frame/basket hanger and bottom frame. Exact dimensions for top frame and inset basket shall be determined based on dimensions of type of inlet being protected.

2.8 STRAW BALE

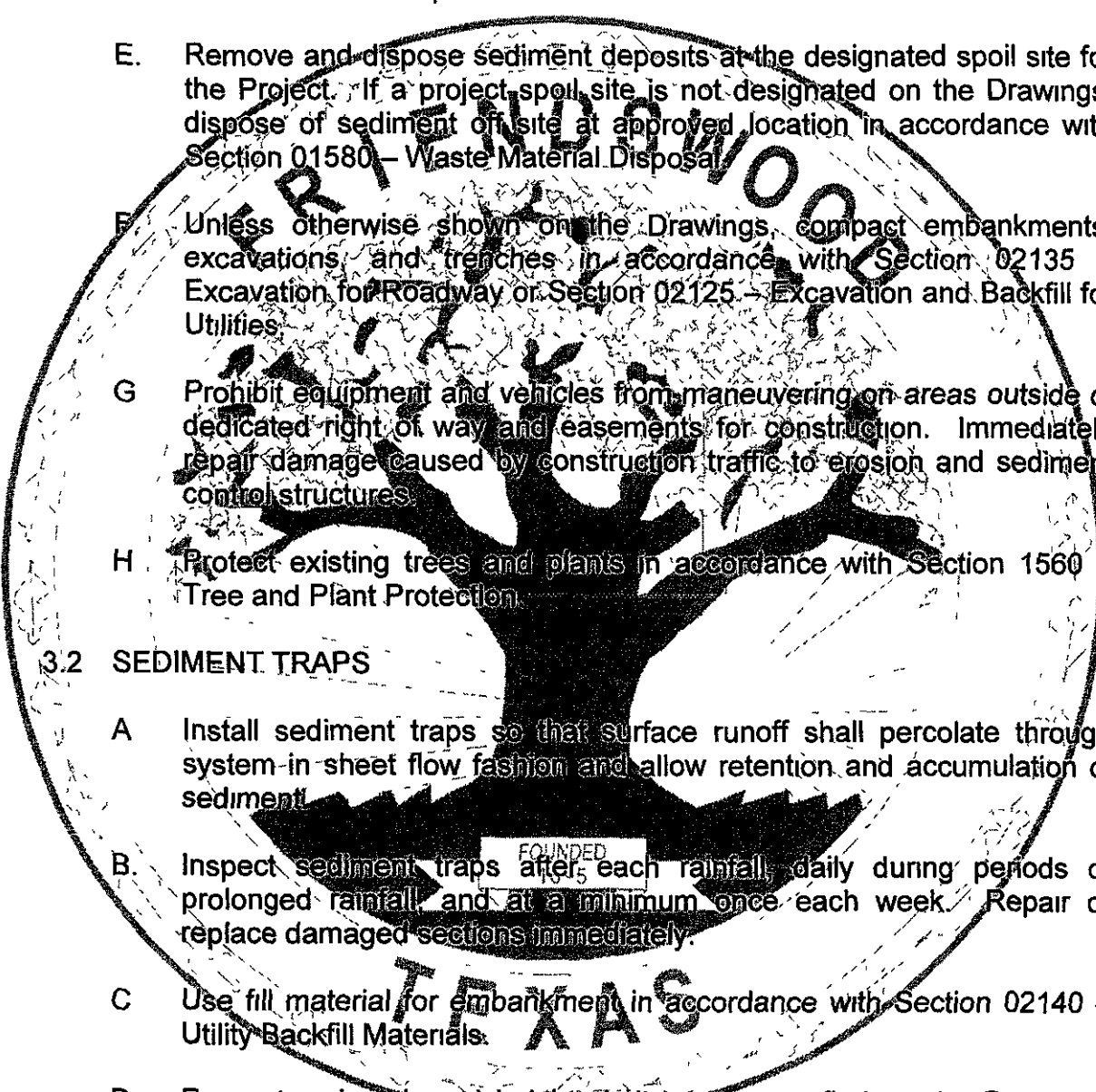
- A. Straw. Standard-baled agricultural hay bound by wire, nylon, or polypropylene rope. Do not use jute or cotton binding.
- B. Straw Bale Stakes (applicable where bales are on soil): No. 3 (3/8 inch diameter) reinforcing bars, deformed or smooth at Contractor's option, length as required for a minimum eighteen inch (18 In) bury and full height bales.

PART III: EXECUTION

3.1 PREPARATION, INSTALLATION AND MAINTAINANCE

- A. Provide erosion and sediment control structures at locations shown on the Drawings.
- B. Do not clear, grub or rough cut until erosion and sediment control systems are in place unless approved by the Project Manager to allow installation of erosion and sediment control systems, soil testing and surveying.
- C. Maintain existing erosion and sediment control systems located within the project site until acceptance of the Project or until directed by the Project Manager to remove and discard existing system
- D. Regularly inspect and repair or replace damaged components of

erosion and sediment control structures. Unless otherwise directed, maintain erosion and sediment control structure until the project area stabilization is accepted. Redress and replace granular fill at outlets as needed to replenish depleted granular fill. Remove erosion and sediment control structures promptly when directed by the Project Manager. Dispose of materials in accordance with Section 01580 – Waste Material Disposal.

- 
- E. Remove and dispose sediment deposits at the designated spoil site for the Project. If a project spoil site is not designated on the Drawings, dispose of sediment off site at approved location in accordance with Section 01580 – Waste Material Disposal.
 - F. Unless otherwise shown on the Drawings, compact embankments, excavations, and trenches in accordance with Section 02135 – Excavation for Roadway or Section 02125 – Excavation and Backfill for Utilities.
 - G. Prohibit equipment and vehicles from maneuvering on areas outside of dedicated right of way and easements for construction. Immediately repair damage caused by construction traffic to erosion and sediment control structures.
 - H. Protect existing trees and plants in accordance with Section 1560 – Tree and Plant Protection.

3.2 SEDIMENT TRAPS

- A. Install sediment traps so that surface runoff shall percolate through system in sheet flow fashion and allow retention and accumulation of sediment.
- B. Inspect sediment traps after each rainfall, daily during periods of prolonged rainfall, and at a minimum once each week. Repair or replace damaged sections immediately.
- C. Use fill material for embankment in accordance with Section 02140 – Utility Backfill Materials.
- D. Excavation length and height shall be as specified on the Drawings. Use side slopes of two to one (2:1) or flatter.
- E. Stone outlet sediment traps.
 - 1. Maintain a minimum of six inches (6 in) between top of core material and top of stone outlet, a minimum of four inches (4 in) between bottom of core material and existing ground and a

minimum of one foot (1 Ft) between top of stone outlet and top of embankment.

- 2 Embed cobbles a minimum of four inches (4 In) into existing ground for stone outlet. Core shall be a minimum of one foot (1 Ft) in height and in width and wrapped in triple layer of geotextile filter fabric

F. Sediment Basin with Pipe Outlet Construction Methods: Install outlet pipe and riser as shown on the Drawings.

G Remove sediment deposits when design basin volume is reduced by one-third (1/3) or sediment level is one foot (1 Ft) below principal spillway crest, whichever is less.

3.3 FILTER FABRIC FENCE CONSTRUCTION METHODS.

A Fence Type 1

- 1 Install stakes three feet (3 Ft) on center maximum and firmly embed a minimum eight inches (8 In) in soil. If filter fabric is factory preassembled with support netting, then maximum support spacing is eight feet (8 Ft). Install wood stakes at a slight angle toward the source of anticipated runoff.

- 2 Trench in the toe of the fence lines so the downward face of the trenches is flat and perpendicular to direction of flow. V-trench configuration as shown on the Drawings may also be used.

- 3 Lay fabric along edges of trenches in longest practical continuous runs to minimize joints. Make joints only at a support post. Splice with a minimum six inch (6 In) overlap and seal securely.

- 4 Staple filter fabric to stakes at maximum three inches (3 In) on center. Extend fabric a minimum eighteen inches (18 In) and a maximum thirty-six inches (36 In) above natural ground.

- 5 Backfill and compact trench

B Fence Type 2

- 1 Layout fence same as for Type 1

- 2 Install stakes at six feet (6 Ft) on center maximum and at each joint in wire fence, firmly embedded one foot (1 Ft) minimum, and inclined it as for Type 1.

- 3 Tie wire fence to stakes with wire at six inches (6 In) on center maximum. Overlap joints a minimum one (1) bay of mesh.
4. install trench same as for Type 1
- 5 Fasten filter fabric wire fence with tie wires at three inches (3 In) on center maximum.
- 6 Layout fabric same as for Type 1. Fasten to wire fence with wire ties at three inches (3 In) on center maximum and, if applicable, to stakes above top of wire fence it as for Type 1.
7. Backfill and compact trench.

C. Attach filter fabric to wooden fence stakes spaced a maximum of six feet (6 Ft) apart or steel fence stakes spaced a maximum of eight feet (8 Ft) apart and embedded a minimum of twelve inches (12 In). Install stakes at a slight angle toward source of anticipated runoff.

D. Trench in toe of filter fabric fence with spade or mechanical trencher so that downward face of trench is flat and perpendicular to direction of flow. A V-trench configuration may also be used. Lay filter fabric along edges of trench. Backfill and compact trench upon completion of construction.

E. Filter fabric fence shall have a minimum height of eighteen inches (18 In) and a maximum height of thirty-six inches (36 In) above natural ground.

F. Cut length of fence to minimize use of joints. When joints are necessary, splice fabric together only at support post with a minimum six inch (6 In) overlap and seal securely.

G. Triangular Filter Fabric Fence Construction Methods

1. Attach filter fabric to wire fencing, eighteen inches (18 In) on each side. Provide a fabric cover and skirt with continuous wrapping of fabric. Skirt should form continuous extension of fabric on upstream side of fence.

2. Secure triangular fabric filter fence in place using one (1) of the following methods:

- a Toe-in skirt six inches (6 In) with mechanically compacted material,

- b. Weight down skirt with continuous layer of three inch (3 In) to five inch (5 In) graded rock; or
- c. Trench-in entire structure four inches (4 In).

3 Anchor triangular fabric filter fence structure and skirt securely in place using six inch (6 In) wire staples on two foot (2 Ft) centers on both edges and on skirt, or staked using eighteen inch (18 In) by three-eighths inch (3/8 In) diameter re-bar with tee ends.

4 Lap fabric filter material by six inches (6 In) to cover segment joints. Fasten joints with galvanized shoat rings.

H. Reinforced Filter Fabric Barrier Construction Methods

1. Attach woven wire fence to fence stakes

2. Securely fasten filter fabric material to wire fence with tie wires.

3. When used in swales, ditches or diversions, elevation of barrier at top of filter fabric at flow line location in channel shall be lower than bottom elevation of filter fabric at ends of barrier or top of bank whichever is less, in order to keep storm water discharge in channel from overtopping bank.

4. Remove sediment deposits when silt reaches depth one-third (1/3) height of barrier or six inches (6 In), whichever is less.

3.4 DIKE AND SWALE

A. Unless otherwise indicated, maintain a minimum dike height of eighteen inches (18 In), measured from cleared ground at up slope toe to top of dike. Maintain side slopes of two to one (2:1) or flatter.

B. Dike and Swale Stabilization: When shown on the Drawings, place gravel lining three inches (3 In) thick and compacted into the soil or six inches (6 In) thick if truck crossing is expected. Extend gravel lining across bottom and up both sides of swale a minimum height of eight inches (8 In) vertically, above bottom. Gravel lining on dike side shall extend up the up slope side of dike a minimum height of eight inches (8 In), measured vertically from interface of existing or graded ground and up slope toe of dike, as shown on the Drawings.

C. Divert flow from dikes and swales to sediment basins, stabilized outlets, or sediment trapping devices of types and at locations shown on the Drawings. Grade dikes and swales as shown on the Drawings, or, if

not specified, provide positive drainage with a maximum grade of one percent (1%) to outlet or basin

- D. Clear in accordance with Section 02100 – Clearing and Grubbing
Compact embankments in accordance with Section 02135 – Excavation for Roadway
- E. Carry out excavation for swale construction so that erosion and water pollution is minimal. A minimum depth shall be one foot (1 Ft) and bottom width shall be four feet (4 Ft), with level swale bottom. Excavation slopes shall be two to one (2:1) or flatter. Clear, grub and strip excavation area of vegetation and root material.

3.5 DOWN SPOUT EXTENDER

- A. Down spout extender shall have slope of approximately one percent (1%). Use pipe diameter of four inches (4 in) or as shown on the Drawings. Place pipe in accordance with Section 02125 – Excavation and Backfill for Utilities

3.6 PIPE SLOPE DRAIN

- A. Compact soil around and under drain entrance section to top of embankment in lifts appropriately sized for method of compaction utilized.
- B. Inlet pipe shall have slope of one percent (1%) or greater. Use pipe diameter as shown on the Drawings.
- C. Top of embankment over inlet pipe and embankments directing water to pipe shall be at least one foot (1 Ft) higher at all points than top of inlet pipe
- D. Pipe shall be secured with hold-down grommets spaced ten feet (10 Ft) on centers.
- E. Place riprap apron with a depth equal to pipe diameter with two to one (2:1) side slopes.

3.7 PAVED FLUME

- A. Compact soil around and under the entrance section to top of the embankment in lifts appropriately sized for method of compaction utilized.
- B. Construct subgrade to required elevations. Remove and replace soft sections and unsuitable material. Compact subgrade thoroughly and

shape to a smooth, uniform surface.

- C. Construct permanent paved flumes in accordance with the Drawings.
- D. Remove sediment from riprap apron when sediment has accumulated to depth of one foot (1 Ft).

3 8 LEVEL SPREADER

- A. Construct level spreader on undisturbed soil and not on fill. Ensure that spreader lip is level for uniform spreading of storm runoff.
- B. Maintain at required depth, grade, and cross section as specified on the Drawings. Remove sediment deposits as well as projections or other irregularities which shall impede normal flow.

3 9 INLET PROTECTION BARRIER

- A. Place sandbags and filter fabric fences at locations shown on the SW3P.

3 10 DROP INLET BASKET CONSTRUCTION METHODS

- A. Fit inlet insert basket into inlet without gaps around insert at locations shown on the SW3P.
- B. Support for inlet insert basket shall consist of fabricated metal as shown on the Drawings.
- C. Push down and form filter fabric to shape of basket. Use sheet of fabric large enough to be supported by basket frame when holding sediment and extend at least six inches (6 in) past frame. Place inlet grates over basket/frame to serve as fabric anchor.
- D. Remove sediment deposit after each storm event and whenever accumulation exceeds one inch (1 in) depth during weekly inspections.

3 11 STRAW BALE FENCE CONSTRUCTION METHODS

- A. Place bales in row with ends tightly abutting adjacent bales. Place bales with bindings parallel to ground surface.
- B. Embed bale in soil a minimum of four inches (4 in).
- C. Securely anchor bales in place with Straw Bale Stakes driven through bales a minimum of eighteen inches (18 in) into ground. Angle first (1st) stake in each bale toward previously laid bale to force bales

together

- D Fill gaps between bales with straw to prevent water from channeling between bales. Wedge carefully in order not to separate bales.
- E Replace with new straw bale fence every two months (2 Mos) or as required by the Project Manager

3.12 BRUSH BERM CONSTRUCTION METHODS

- A Construct brush berm along contour lines by hand placing method. Do not use machine placement of brush berm.
- B Use woody brush and branches having diameter less than two inches (2 In) with six inches (6 In) overlap. Avoid incorporation of annual weeds and soil into brush berm.
- C Use a minimum height of eighteen inches (18 In) measured from top of existing ground at upslope toe to top of berm. Top width shall be twenty-four (24) inches minimum and side slopes shall be two to one (2:1) or flatter.
- D Embed brush berm into soil a minimum of four inches (4 In) and anchor using wire, nylon or polypropylene rope across berm with a minimum tension of fifty pounds (50 Lbs). Tie rope securely to eighteen inch (18 In) by three-eighths inch (3/8 In) diameter rebar stakes driven into ground on four foot (4 Ft) centers on both sides of berm.

3.13 STREET AND SIDEWALK CLEANING

- A Keep areas clean of construction debris and mud carried by construction vehicles and equipment. If necessary, install stabilized construction exits at construction, staging, storage, and disposal areas, following Section 01575 - Stabilized Construction Exit.
- B In lieu of or in addition to stabilized construction exits, shovel or sweep pavements as required to keep areas clean. Do not waterhose or sweep debris and mud off street into adjacent areas, except, hose sidewalks during off-peak hours, after sweeping.

3.14 WASTE COLLECTION AREAS

- A Prevent water runoff from passing through waste collection areas, and prevent water runoff from waste collection areas migrating outside collection areas.

3.15 EQUIPMENT MAINTENANCE AND REPAIR

01570-14

- A. Confine maintenance and repair of construction machinery and equipment to areas specifically designated for that purpose, so fuels, lubricants, solvents, and other potential pollutants are not washed directly into receiving streams or storm water conveyance systems. Provide these areas with adequate waste disposal receptacles for liquid and solid waste. Clean and inspect maintenance areas daily.
- B. Where designated equipment maintenance areas are not feasible, take precautions during each individual repair or maintenance operation to prevent potential pollutants from washing into streams or conveyance systems. Provide temporary waste disposal receptacles.

3.16 VEHICLE/EQUIPMENT WASHING AREAS

- A. Install wash area (stabilized with coarse aggregate) adjacent to stabilized construction exit(s), as required to prevent mud and dirt run-off. Release wash water into drainage swales or inlets protected by erosion and sediment controls. Build wash areas following Section 01575 - Stabilized Construction Exit. Install gravel or rock base beneath wash areas.
- B. Wash vehicles only at designated wash areas. Do not wash vehicles such as concrete delivery trucks or dump trucks and other construction equipment at locations where runoff flows directly into watercourses or storm water conveyance systems.
- C. Locate wash areas to spread out and evaporate or infiltrate wash water directly into ground, or collect runoff in temporary holding or seepage basins.

3.17 WATER RUNOFF AND EROSION CONTROL

- A. Control surface water, runoff, subsurface water, and water from excavations and structures to prevent damage to the Work, the site, or adjoining properties.
- B. Control fill, grading and ditching to direct water away from excavations, pits, tunnels, and other construction areas, and to direct drainage to proper runoff courses to prevent erosion, sedimentation or damage.
- C. Provide, operate, and maintain equipment and facilities of adequate size to control surface water.
- D. Dispose of drainage water to prevent flooding, erosion, or other damage to the site or adjoining areas. Follow environmental requirements.

- E. Retain existing drainage patterns external to the site by constructing temporary earth berms, sedimentation basins, retaining areas, and temporary ground cover as required to control conditions.
- F. Plan and execute construction and earth work to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation.

1. Hold area of bare soil exposed at one (1) time to a minimum
2. Provide temporary controls such as berms, dikes, and drains.

- G. Construct fill and waste areas by selective placement to eliminate surface silts or clays which shall erode.

- H. Inspect earthwork periodically to detect start of erosion. Immediately apply corrective measures as required to control erosion.

- I. Dispose of sediments offsite, not in or adjacent to streams or floodplains, nor allow sediments to flush into streams or drainage ways. Assume responsibility for offsite disposal location.

- J. Unless otherwise indicated, compact embankments, excavations, and trenches by mechanically blading, tamping, and rolling soil in a maximum of eight inch (8 in) layers. Provide compaction density at a minimum ninety-five percent (95%) Standard Proctor ASTM D698-78 density. Make at least one (1) test per five hundred cubic yards (500 Cy) of embankment.

- K. Do not maneuver vehicles on areas outside of dedicated rights-of-way and easements for construction. Immediately repair damage to erosion and sedimentation control systems caused by construction traffic.

- L. Do not damage existing trees intended to remain.

3.18 REMOVAL OF CONTROLS

- A. Remove erosion and sediment controls when the site is finally stabilized or as directed by the Project Manager.
- B. Dispose of sediments and waste products following Section 01505 – Temporary Facilities and Control.

END OF SECTION

SECTION 01575

STABILIZED CONSTRUCTION EXIT

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Installation of erosion and sediment control for stabilized construction exits used during construction and prior to final development of site

1.2 MEASUREMENT AND PAYMENT

- A. Unit Price Contracts. If Contract is Unit Price Contract, payment for work in this Section will be based on the following:
 - 1. Stabilized construction roads, parking areas, exits and truck-washing areas, per square yard of aggregate placed in eight inch (8-in) layers. No separate payment will be made for street cleaning necessary to meet TPDES requirements. Include cost of work for street cleaning under related Technical Specification section.
- B. Total Stipulated Price (Lump Sum) Contracts. If the Contract is a Total Stipulated Price Contract, include payment for work under this Section in the Total Stipulated Price.

1.3 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.
- B. Submit manufacturers catalog sheets and other Product Data on geotextile fabric.
- C. Submit sieve analysis of aggregates conforming to requirements of this Technical Specification.

1.4 REFERENCES

- A. ASTM – American Society for Testing and Materials.
 - 1. ASTM D 4632 -Standard Test Method for Grab Breaking Load and Elongation of Geotextiles

B. CFTS – City of Friendswood Technical Specifications.

- 1 Section 01330 – Submittal Procedures.**
- 2 Section 01570 – Storm Water Pollution Control**

C. Storm Water Management Plan Manual prepared by the City of Friendswood

PART II: PRODUCTS

2.1 GEOTEXTILE FABRIC

- A. Provide woven or non-woven geotextile fabric made of polypropylene, polyethylene, ethylene or polyamide material.**
- B. Geotextile fabric: Minimum grab strength of two hundred seventy pounds per square inch (270 psi) in any principal direction (ASTM D-4632) and equivalent opening size between fifty millimeters (50 mm) and one hundred forty millimeters (140 mm)**
- C. Geotextile and threads: Resistant to chemical attack, mildew, and rot and contain ultraviolet ray inhibitors and stabilizers to provide minimum of six months (6 Mos) of expected usable life at temperature range of zero degrees Fahrenheit (0° F) to one hundred twenty degrees Fahrenheit (120° F).**
- D. Representative Manufacturers: Mirafi, Inc or equal.**

2.2 COARSE AGGREGATES

- A. Coarse aggregate: Crushed stone, gravel, crushed blast furnace slag, or combination of these materials. Aggregate shall be composed of clean, hard, durable materials free from adherent coatings of, salt, alkali, dirt, clay, loam, shale, soft or flaky materials, or organic and injurious matter**
- B. Coarse aggregates shall conform to gradation requirements in TABLE 4.1 – GRADATION REQUIREMENTS FOR COARSE AGGREGATES in this Section**

PART III: EXECUTION

3.1 PREPARATION AND INSTALLATION

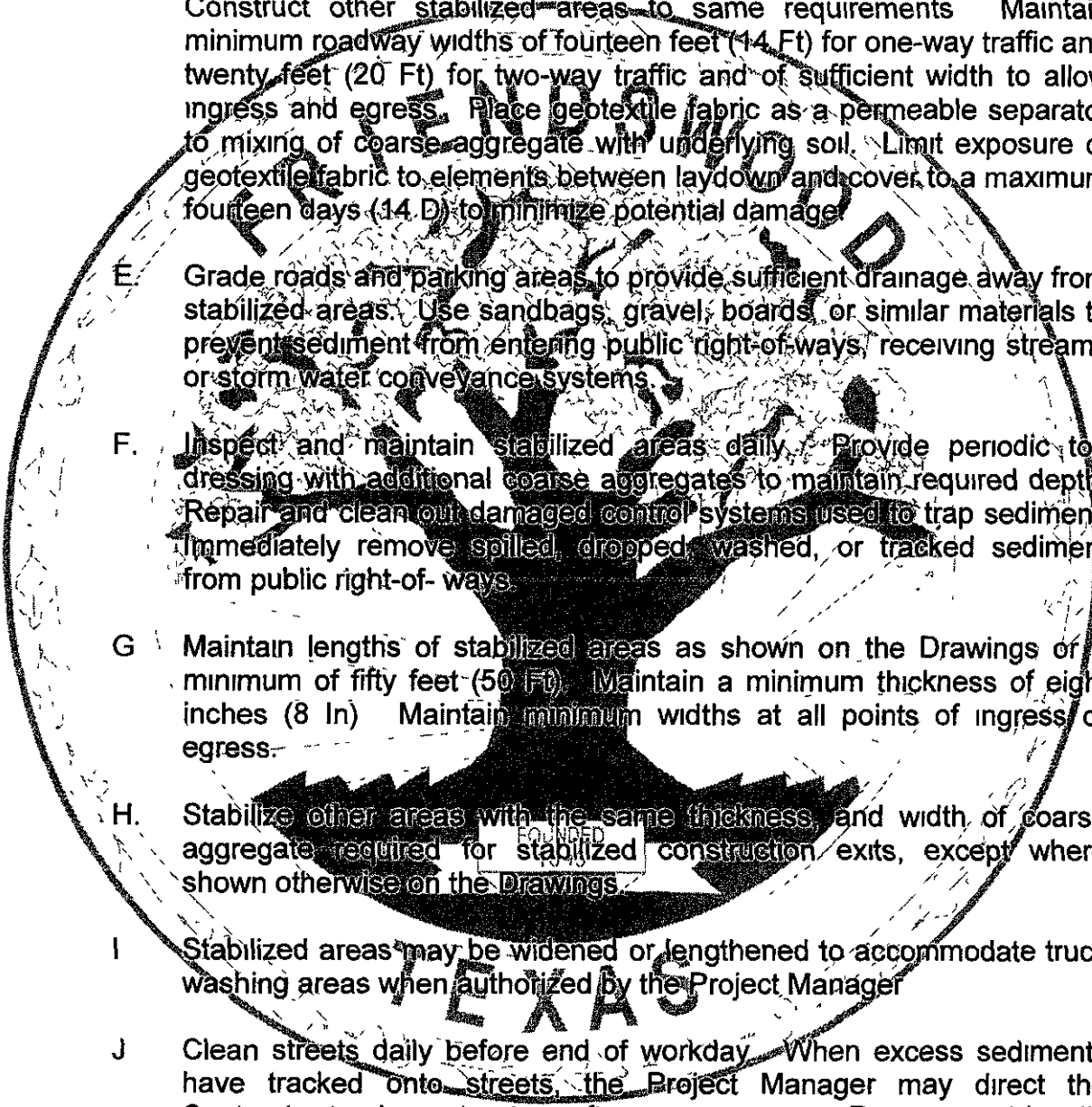
- A. Provide stabilized construction roads and exits at construction staging,**

parking, storage and disposal areas to keep streets clean of mud carried by construction vehicles and equipment. Construct erosion and sediment controls in accordance with the Drawings and Technical Specification requirements

- B. Do not clear grub or rough cut until erosion and sediment control systems are in place, unless approved by the Project Manager to allow soil testing and surveying.
- C. Maintain existing construction site erosion and sediment control systems until acceptance of the Work or until removal of existing systems is approved by the Project Manager.
- D. Regularly inspect, repair or replace components of stabilized construction exits. Unless otherwise directed, maintain stabilized construction roads and exits until the City accepts the Work. Remove stabilized construction roads and exits promptly when directed by the Project Manager. Discard removed materials off-site.
- E. Remove and dispose of sediment deposits at designated spoil site for the Project. If a spoil site is not designated on the Drawings, dispose of sediment off-site at a location not in or adjacent to stream or flood plain. Assume responsibility for off-site disposal.
- F. Spread compacted and stabilized sediment evenly throughout site. Do not allow sediment to flush into streams or drainage ways. Dispose of contaminated sediment in accordance with existing federal, state, and local rules and regulations.
- G. Prohibit equipment and vehicles from maneuvering on areas outside of dedicated rights-of-way and easements for construction. Immediately repair damage to erosion and sediment control systems caused by construction traffic.
- H. Conduct construction operations in conformance with erosion control requirements of Section 01570 – Storm Water Pollution Control

3.2 CONSTRUCTION METHODS

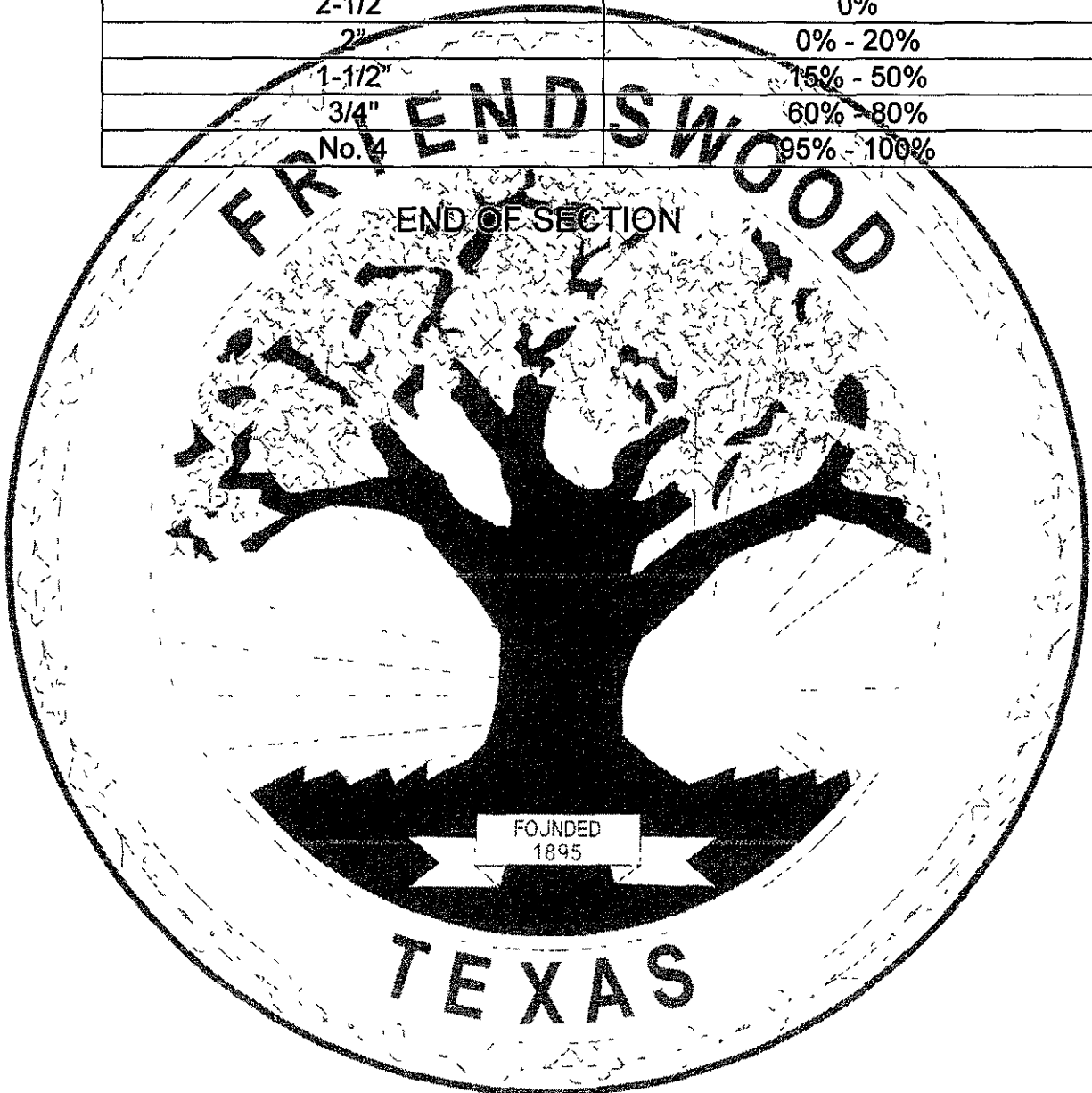
- A. Provide stabilized access roads, subdivision roads, parking areas, and other on-site vehicle transportation routes where shown on the Drawings
- B. Provide stabilized construction exits and truck washing areas, when approved by the Project Manager, of sizes and at locations shown on the Drawings or as specified in this Section

- 
- C. Clean tires to remove sediment on vehicles leaving construction areas prior to entering public right-of-ways. Construct truck washing areas needed to remove sediment. Wash trucks on stabilized areas that drain into drainage systems protected by erosion and sediment control measures.
 - D. Details for stabilized construction exits are shown on the Drawings. Construct other stabilized areas to same requirements. Maintain minimum roadway widths of fourteen feet (14 Ft) for one-way traffic and twenty feet (20 Ft) for two-way traffic and of sufficient width to allow ingress and egress. Place geotextile fabric as a permeable separator to mixing of coarse aggregate with underlying soil. Limit exposure of geotextile fabric to elements between laydown and cover to a maximum fourteen days (14 D) to minimize potential damage.
 - E. Grade roads and parking areas to provide sufficient drainage away from stabilized areas. Use sandbags, gravel, boards, or similar materials to prevent sediment from entering public right-of-ways, receiving streams or storm water conveyance systems.
 - F. Inspect and maintain stabilized areas daily. Provide periodic top dressing with additional coarse aggregates to maintain required depth. Repair and clean out damaged control systems used to trap sediment. Immediately remove spilled, dropped, washed, or tracked sediment from public right-of-ways.
 - G. Maintain lengths of stabilized areas as shown on the Drawings or a minimum of fifty feet (50 Ft). Maintain a minimum thickness of eight inches (8 In). Maintain minimum widths at all points of ingress or egress.
 - H. Stabilize other areas with the same thickness and width of coarse aggregate required for stabilized construction exits, except where shown otherwise on the Drawings.
 - I. Stabilized areas may be widened or lengthened to accommodate truck washing areas when authorized by the Project Manager.
 - J. Clean streets daily before end of workday. When excess sediments have tracked onto streets, the Project Manager may direct the Contractor to clean street as often as necessary. Remove and legally dispose of sediments.
 - K. Use other erosion and sediment control measures to prevent sediment runoff during rain periods and non-working hours and when storm discharges are expected.

PART IV TABLES

4.1 GRADATION REQUIREMENTS FOR COARSE AGGREGATES

SIEVE SIZE (Square Mesh)	PERCENT RETAINED (By Weight)
2-1/2"	0%
2"	0% - 20%
1-1/2"	15% - 50%
3/4"	60% - 80%
No. 4	95% - 100%



SECTION 01580

WASTE MATERIAL DISPOSAL

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Disposal of waste material and salvageable material.

1.2 SUBMITTALS

- A. Conform to requirements of Section 01330 - Submittal Procedures
- B. Submit copy of approved "Development Permit" as defined in Chapter 34, Article II, Section 34-32 of City of Friendswood Code of Ordinances, prior to disposal of excess material in areas designated as being in "100-year Flood Hazard Area" within the City. Contact the City of Friendswood Flood Plain Manager, 910 S. Friendswood Drive, at (281) 996-3201 for flood plain information.
- C. Obtain and submit disposal permits for proposed disposal sites, if required by local ordinances.
- D. Submit copy of written permission from property owner, with description of property, prior to disposal of excess material adjacent to the Project. Submit written and signed release from property owner upon completion of disposal work.
- E. Describe waste materials expected to be stored on-site and a description of controls to reduce pollutants from these materials, including storage practices to minimize exposure of materials to storm water, and spill prevention and response measures in the Project's Storm Water Pollution Prevention Plan (SWPPP). Refer to Section 01410 - TPDES Requirements.

1.3 REFERENCES

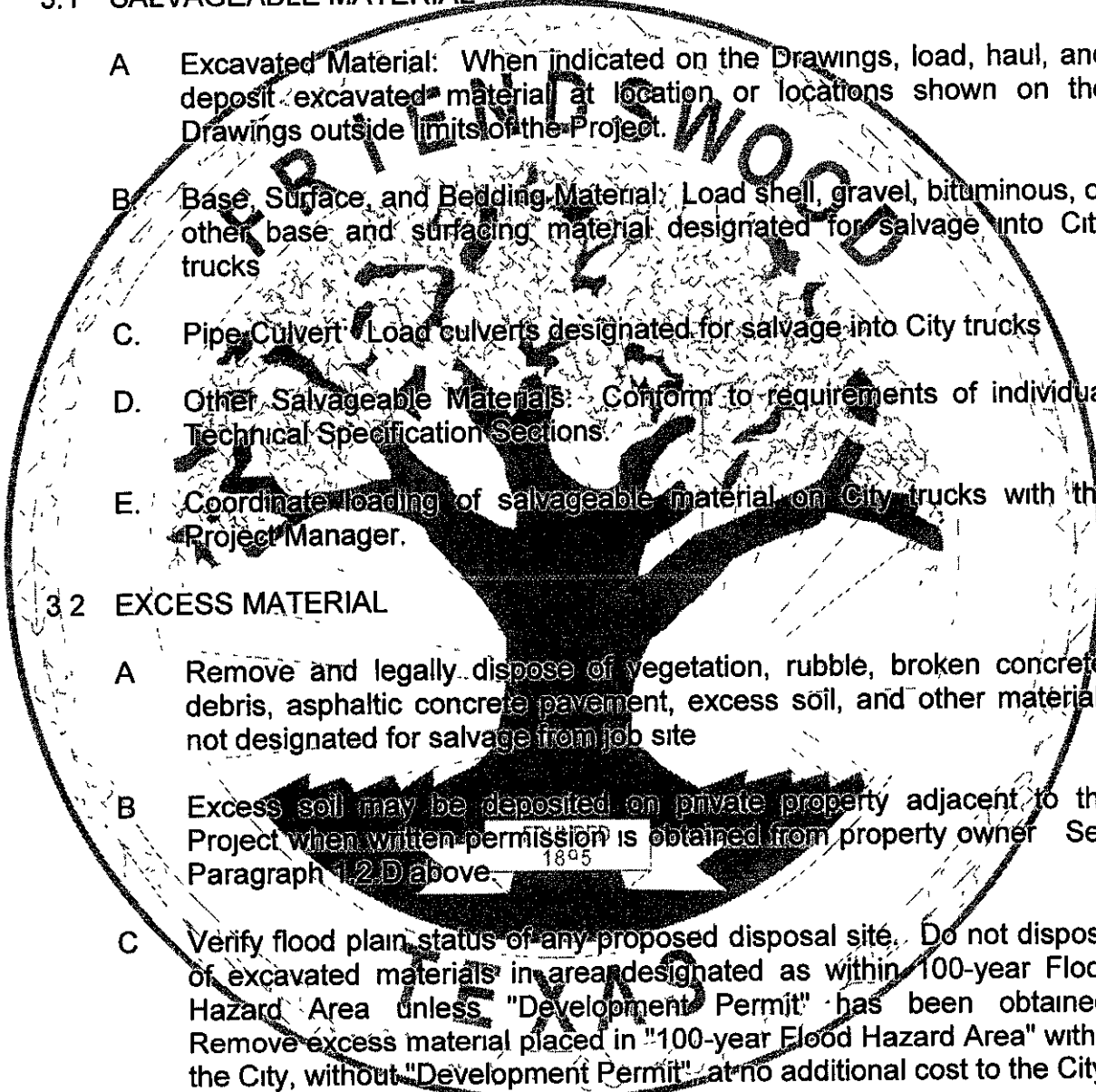
- A. CFCO – City of Friendswood Code of Ordinances
- 1 Chapter 34 – Flood Damage Prevention.
- B. CFTS – City of Friendswood Technical Specifications
- 1 Section 01330 – Submittal Procedures.

2 Section 01410 – TPDES Requirements

PART II: PRODUCTS – NOT USED

PART III: EXECUTION

3.1 SALVAGEABLE MATERIAL

- 
- A Excavated Material: When indicated on the Drawings, load, haul, and deposit excavated material at location or locations shown on the Drawings outside limits of the Project.
 - B Base, Surface, and Bedding Material: Load shell, gravel, bituminous, or other base and surfacing material designated for salvage into City trucks
 - C Pipe Culvert: Load culverts designated for salvage into City trucks
 - D Other Salvageable Materials: Conform to requirements of individual Technical Specification Sections.
 - E Coordinate loading of salvageable material on City trucks with the Project Manager.

3.2 EXCESS MATERIAL

- A Remove and legally dispose of vegetation, rubble, broken concrete, debris, asphaltic concrete pavement, excess soil, and other materials not designated for salvage from job site
- B Excess soil may be deposited on private property adjacent to the Project when written permission is obtained from property owner. See Paragraph 1.2 D above.
- C Verify flood plain status of any proposed disposal site. Do not dispose of excavated materials in area designated as within 100-year Flood Hazard Area unless "Development Permit" has been obtained. Remove excess material placed in "100-year Flood Hazard Area" within the City, without "Development Permit" at no additional cost to the City.
- D Remove waste materials from site daily, in order to maintain site in neat and orderly condition.

END OF SECTION

SECTION 01585

CONTROL OF GROUND AND SURFACE WATER

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Dewatering, depressurizing, draining, and maintaining trenches, shaft excavations, structural excavations and foundation beds in stable condition, and controlling ground water conditions for tunnel excavations.
- B. Protecting work against surface runoff and rising floodwaters
- C. Trapping suspended sediment in the discharge from the surface and groundwater control systems

1.2 MEASUREMENT AND PAYMENT

A UNIT PRICES:

1. Measurement for control of ground water, if included in Document 00300 – Unit Price Form, will be on either a lump sum basis or a linear foot basis for continuous installations of wellpoints, eductor wells, or deep wells.
2. If not included in Document 00300 – Unit Price Form, include the cost to control ground water in unit price for work requiring such controls.
3. No separate payment will be made for control of surface water. Include cost to control surface water in unit price for work requiring controls.
4. Follow Section 01270 – Measurement and Payment for unit price procedures

B Total Stipulated Price (Lump Sum) Contract.

1. If the Contract is a Total Stipulated Price Contract, include payment for work under this Section in the Total Stipulated Price.

1.3 REFERENCES

A. ASTM – American Society for Testing and Materials.

1. ASTM D698 – Standard Test Methods for Laboratory Compaction of Soils Using Standard Effort (12,400 ft-lbf/ft³ (600kN-m/m³))

B. CFTS – City of Friendswood Technical Specifications.

1. Document 00300 – Unit Price Forms
2. Section 01270 – Measurement and Payment

C. CFSWMP – City of Friendswood Storm Water Management Plan manual.

D. Federal Regulations

1. Federal Regulation 29 CFR Part 1926, Standards-Excavation, Occupational Safety and Health Administration (OSHA).

E. TCEQ – Texas Commission on Environmental Quality.

F. TWWDA – Texas Water Well Drillers Association.

1.4 DEFINITIONS

A. Ground water control system: system used to dewater and depressurize water-bearing soil layers

1. Dewatering: Lowering the water table and intercepting seepage that would otherwise emerge from slopes or bottoms of excavations, or into tunnels and shafts; and disposing of removed water. Intent of dewatering is to increase stability of tunnel excavations and excavated slopes, prevent dislocation of material from slopes or bottoms of excavations, reduce lateral loads on sheeting and bracing, improve excavating and hauling characteristics of excavated material, prevent failure or heaving of bottom of excavations, and to provide suitable conditions for placement of backfill materials and construction of structures and other installations.

2. Depressurization: Includes reduction in piezometric pressure within strata not controlled by dewatering alone, necessary to prevent failure or heaving of excavation bottom or instability of tunnel excavations.

- B. Excavation drainage Includes keeping excavations free of surface and seepage water.
- C. Surface drainage Includes use of temporary drainage ditches and dikes and installation of temporary culverts and sump pumps with discharge lines necessary to protect Work from any source of surface water.
- D. Monitoring facilities for ground water control system Includes piezometers, monitoring wells and flow meters for observing and recording flow rates.

1.5 PERFORMANCE REQUIREMENTS

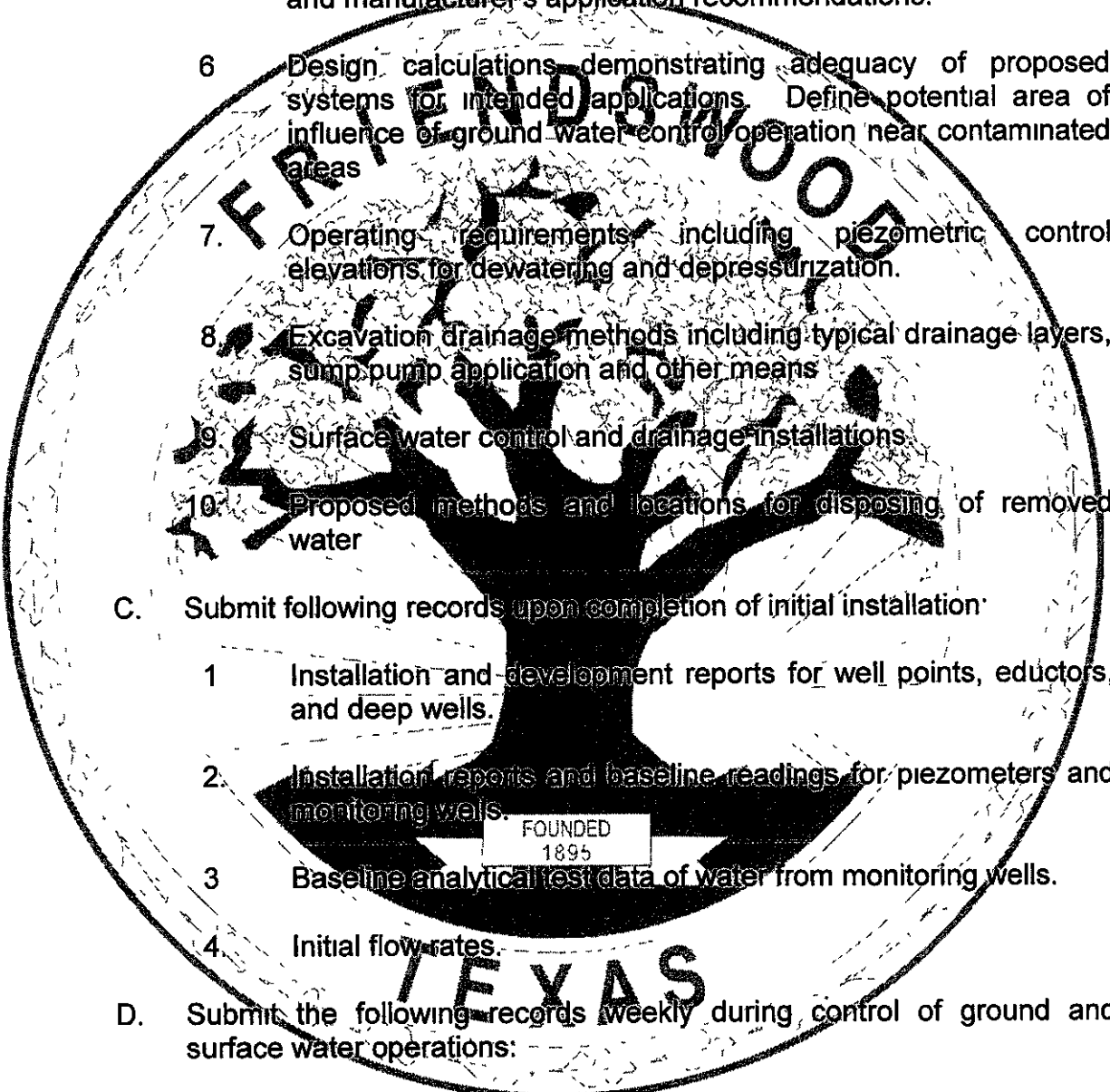
- A. Conduct subsurface investigations to identify groundwater conditions and to provide parameters for design, installation, and operation of groundwater control systems. Submit proposed method and spacing of readings for review prior to obtaining water level readings.
- B. Design ground water control system, compatible with requirements of Federal Regulations 29 CFR Part 1926 and Section 02280 -Trench Safety Systems, to produce following results:
 - 1. Effectively reduce hydrostatic pressure affecting:
 - a. Excavations.
 - b. Tunnel excavation, face stability or seepage into tunnels.
 - 2. Develop substantially dry and stable subgrade for subsequent construction operations.
 - 3. Preclude damage to adjacent properties, buildings, structures, utilities, installed facilities and other work.
 - 4. Prevent loss of fines, seepage, boils, quick condition, or softening of foundation strata.
 - 5. Maintain stability of sides and bottom of excavations.
- C. Provide ground water control systems that include single-stage or multiple-stage well point systems, eductor and ejector-type systems, deep wells, or combinations of these equipment types
- D. Provide drainage of seepage water and surface water, as well as water

from other sources entering excavation. Excavation drainage may include placement of drainage materials, crushed stone and filter fabric, together with sump pumping.

- E. Provide ditches, berms, pumps and other methods necessary to divert and drain surface water from excavation and other work areas
- F. Locate ground water control and drainage systems so as not to interfere with utilities, construction operations, adjacent properties, or adjacent water wells.
- G. Assume sole responsibility for ground water control systems and for any loss or damage resulting from partial or complete failure of protective measures and settlement or resultant damage caused by ground water control operations. Modify ground water control systems or operations if they cause or threaten to cause damage to new construction, existing site improvements, adjacent property, adjacent water wells, or potentially contaminated areas. Repair damage caused by ground water control systems or resulting from failure of system to protect property as required.
- H. Install an adequate number of piezometers installed at proper locations and depths, necessary to provide meaningful observations of conditions affecting excavation, adjacent structures and water wells.
- I. Install environmental monitoring wells at proper locations and depths necessary to provide adequate observations of hydrostatic conditions and possible contaminant transport from contamination sources into work area or ground water control system

1.6 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittals Procedures
- B. Submit Ground Water and Surface Water Control Plan for review by the Project Manager prior to start of excavation work. Include the following:
 - 1. Results of subsurface investigations and description of extent and characteristics of water bearing layers subject to ground water control.
 - 2. Names of equipment Suppliers and installation Subcontractors
 - 3. Description of proposed ground water control systems indicating arrangement, location, depth and capacities of system components, installation details and criteria and operation and maintenance procedures

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- 4 Description of proposed monitoring facilities indicating depths and locations of piezometers and monitoring wells, monitoring installation details and criteria, type of equipment and instrumentation with pertinent data and characteristics.
 5. Description of proposed filters including types, sizes, capacities and manufacturer's application recommendations.
 - 6 Design calculations demonstrating adequacy of proposed systems for intended applications. Define potential area of influence of ground water control operation near contaminated areas
 7. Operating requirements including piezometric control elevations for dewatering and depressurization.
 8. Excavation drainage methods including typical drainage layers, sump pump application and other means
 9. Surface water control and drainage installations
 10. Proposed methods and locations for disposing of removed water
- C. Submit following records upon completion of initial installation:
- 1 Installation and development reports for well points, eductors, and deep wells.
 2. Installation reports and baseline readings for piezometers and monitoring wells.
 - 3 Baseline analytical test data of water from monitoring wells.
 4. Initial flow rates.
- D. Submit the following records weekly during control of ground and surface water operations:
- 1 Records of flow rates and piezometric elevations obtained during monitoring of dewatering and depressurization. Refer to Paragraph 3 2, Requirements for Eductor, Well Points, or Deep Wells
 - 2 Maintenance records for ground water control installations, piezometers and monitoring wells.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Comply with requirements of agencies having jurisdiction
- B. Comply with Texas Commission on Environmental Quality (TCEQ) regulations and Texas Water Well Drillers Association for development, drilling, and abandonment of wells used in dewatering system
- C. Obtain necessary permits from agencies with jurisdiction over use of groundwater and matters affecting well installation, water discharge, and use of existing storm drains and natural water sources. Since review and permitting process may be lengthy, take early action to obtain required approvals.
- D. Monitor ground water discharge for contamination while performing pumping in vicinity of potentially contaminated sites

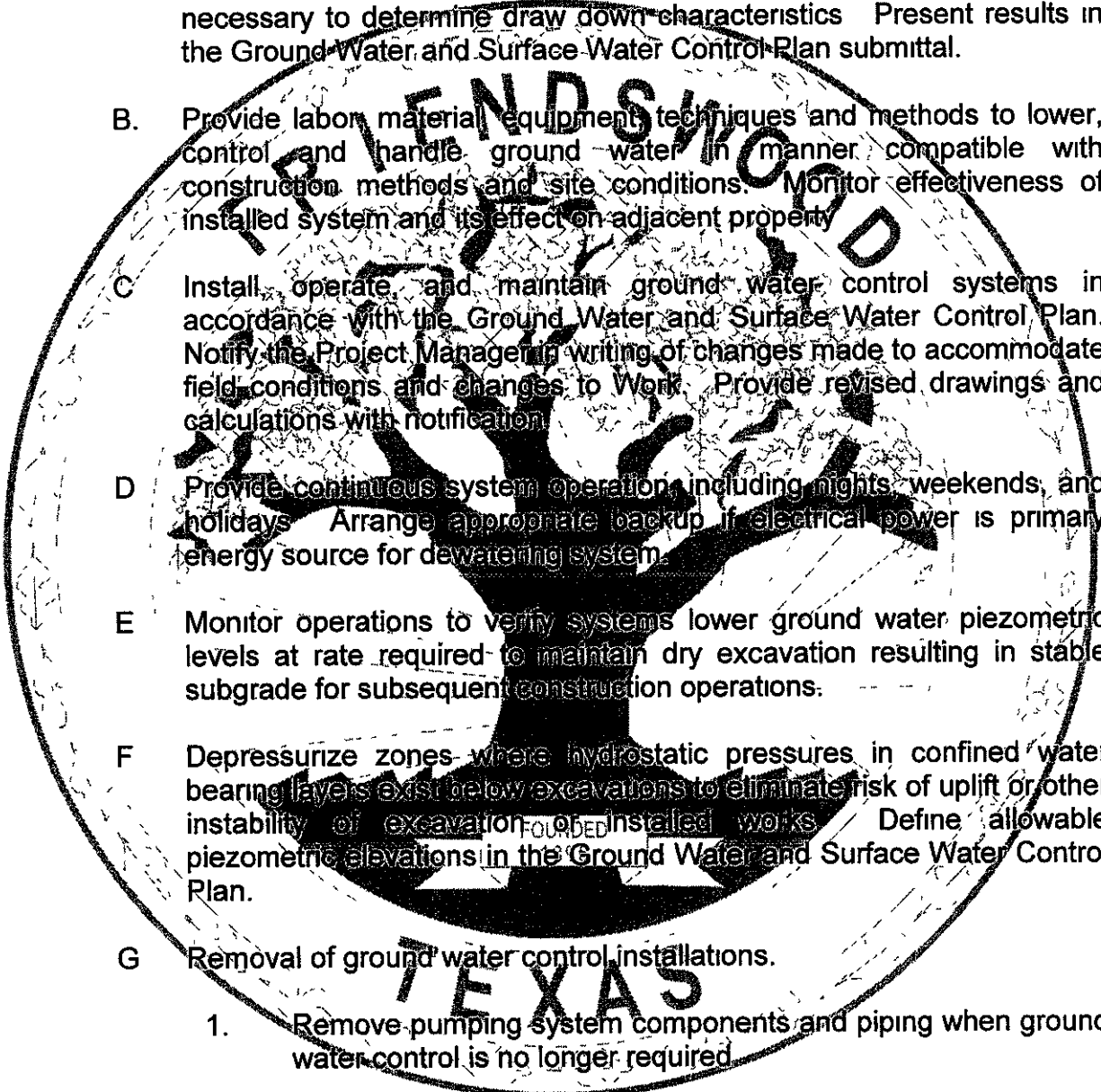
PART II: PRODUCTS

2.1 EQUIPMENT AND MATERIALS

- A. Select equipment and materials necessary to achieve desired results for dewatering. Selected equipment and materials are subject to review by the Project Manager through submittals required in Paragraph 1.6, Submittals.
- B. Use experienced contractors, regularly engaged in ground water control system design, installation, and operation, to furnish and install and operate eductors, well points, or deep wells, when needed.
- C. Maintain equipment in good repair and operating condition.
- D. Keep sufficient standby equipment and materials available to ensure continuous operation, where required.
- E. Portable Sediment Tank System. Standard fifty-five gallon (55 Gal) steel or plastic drums, free of hazardous material contamination.
 - 1. Shop or field fabricate tanks in series with main inlet pipe, inter-tank pipes and discharge pipes, using quantities sufficient to collect sediments from discharge water.

PART III: EXECUTION

3.1 GROUND WATER CONTROL

- 
- A. Perform necessary subsurface investigation to identify water bearing layers, piezometric pressures and soil parameters for design and installation of ground water control systems. Perform pump tests, if necessary to determine draw down characteristics. Present results in the Ground Water and Surface Water Control Plan submittal.
 - B. Provide labor, material, equipment, techniques and methods to lower, control and handle ground water in manner compatible with construction methods and site conditions. Monitor effectiveness of installed system and its effect on adjacent property.
 - C. Install, operate and maintain ground water control systems in accordance with the Ground Water and Surface Water Control Plan. Notify the Project Manager in writing of changes made to accommodate field conditions and changes to Work. Provide revised drawings and calculations with notification.
 - D. Provide continuous system operation, including nights, weekends, and holidays. Arrange appropriate backup if electrical power is primary energy source for dewatering system.
 - E. Monitor operations to verify systems lower ground water piezometric levels at rate required to maintain dry excavation resulting in stable subgrade for subsequent construction operations.
 - F. Depressurize zones where hydrostatic pressures in confined water bearing layers exist below excavations to eliminate risk of uplift or other instability of excavation or installed works. Define allowable piezometric elevations in the Ground Water and Surface Water Control Plan.
 - G. Removal of ground water control installations.
 - 1. Remove pumping system components and piping when ground water control is no longer required.
 - 2. Remove piezometers, including piezometers installed during design phase investigations and left for the Contractor's use, upon completion of testing, as required in accordance with Part III of applicable specification.
 - 3. Remove monitoring wells when directed by the Project Manager.

- 4 Grout abandoned well and piezometer holes. Fill piping that is not removed with cement-bentonite grout or cement-sand grout
- H. During backfilling, maintain water level a minimum of five feet (5 Ft) below prevailing level of backfill. Do not allow the water level to cause uplift pressures in excess of eighty percent (80%) of downward pressure produced by weight of structure or backfill in place. Do not allow water levels to rise into cement-stabilized sand until at least forty-eight hours (48 Hrs) after placement.
- I. Provide uniform pipe diameter for each pipe drain run constructed for dewatering. Remove pipe drains when no longer required. If pipe removal is impractical, grout connections at fifty foot (50 Ft) intervals and fill pipe with cement-bentonite grout or cement-sand grout after removal from service.
- J. The extent of ground water control for structures with permanent perforated underground drainage systems may be reduced, for units designed to withstand hydrostatic uplift pressure. Provide a means to drain affected portions of underground systems including standby equipment. Maintain drainage systems during construction operations.
- K. Remove systems upon completion of construction or when dewatering and control of surface or ground water is no longer required.
- L. Compact backfill to not less than ninety-five percent (95%) of maximum dry density in accordance with ASTM D698.
- M. Foundation Slab: Maintain saturation line at least three feet (3 Ft) below lowest elevations where concrete is to be placed. Drain foundations in areas where concrete is to be placed before placing reinforcing steel. Keep free from water for three days (3 D) after concrete is placed.

3.2 REQUIREMENTS FOR EDUCTOR, WELL POINTS, OR DEEP WELLS

- A. For aboveground piping in ground water control system, include a twelve inch (12 In) minimum length of clear, transparent piping between each eductor well or well point and discharge header to allow visual monitoring of discharge from each installation.
- B. Install sufficient piezometers or monitoring wells to show that trench or shaft excavations in water bearing materials are pre-drained prior to excavation. Provide separate piezometers for monitoring of dewatering and for monitoring of depressurization. Install piezometers and

monitoring wells for tunneling as appropriate for selected method of work

- C. Install piezometers or monitoring wells at least one week (1 Wk) in advance of the start of associated excavation.
- D. Dewatering may be omitted for portions of under drains or other excavations, where auger borings and piezometers or monitoring wells show that soil is pre-drained by existing systems and that ground water control plan criteria are satisfied.
- E. Replace installations that produce noticeable amounts of sediments after development.
- F. Provide additional ground water control installations, or change method of control if ground water control plan does not provide satisfactory results based on performance criteria defined by plan and by specifications. Submit revised plan according to Paragraph 1 6.B.

3.3 SEDIMENT TRAPS

- A. Install sediment tank as shown on approved plan.
- B. Inspect daily and clean out tank when one-third (1/3) of sediment tank is filled with sediment.

3.4 SEDIMENT SUMP PIT

- A. Install sediment sump pits as shown on approved plan.
- B. Construct standpipe by perforating twelve inch (12 in) to twenty-four inch (24 in) diameter corrugated metal or PVC pipe.
- C. Extend standpipe twelve inches (12 in) to eighteen inches (18 in) above lip of pit.
- D. Convey discharge of water pumped from standpipe to sediment trapping device.
- E. Fill sites of sump pits, compact to density of surrounding soil and stabilize surface when construction is complete

3.5 EXCAVATION DRAINAGE

- A. Use excavation drainage methods if well-drained conditions can be achieved. Excavation drainage may consist of layers of crushed stone and filter fabric, and sump pumping, in combination with sufficient

ground water control wells to maintain stable excavation and backfill conditions.

3 6 MAINTENANCE AND OBSERVATION

- A. Conduct daily maintenance and observation of piezometers or monitoring wells while ground water control installations or excavation drainage is operating at the site, or water is seeping into tunnels, and maintain systems in good operating condition.
- B. Replace damaged and destroyed piezometers or monitoring wells with new piezometers or wells as necessary to meet observation schedules.
- C. Cut off piezometers or monitoring wells in excavation areas where piping is exposed, only as necessary to perform observation as excavation proceeds. Continue to maintain and make specified observations.
- D. Remove and grout piezometers inside or outside of excavation area when ground water control operations are complete. Remove and grout monitoring wells when directed by the Project Manager.

3 7 MONITORING AND RECORDING

- A. Monitor and record average flow rate of operation for each deep well, or for each wellpoint or eductor header used in dewatering system. Also, monitor and record water level and ground water recovery. Record observations daily until steady conditions are achieved and twice weekly thereafter.
- B. Observe and record elevation of water level daily as long as ground water control system is in operation, and weekly thereafter until Work is completed or piezometers or wells are removed, except when the Project Manager determines more frequent monitoring and recording are required. Comply with the Project Manager's direction for increased monitoring and recording and take measures necessary to ensure effective dewatering for intended purpose.

3 8 SURFACE WATER CONTROL

- A. Intercept surface water and divert it away from excavations through use of dikes, ditches, curb walls, pipes, sumps or other approved means. Requirement includes temporary works required to protect adjoining properties from surface drainage caused by construction operations.
- B. Divert surface water and seepage water into sumps and pump it into drainage channels or storm drains, when approved by agencies having

jurisdiction Provide settling basins when required by agencies

END OF SECTION



Section 01640

CLEANING AND ADJUSTING

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A The Contractor shall be responsible for cleaning and adjusting the Work. If the Contractor fails to clean and adjust the Work, the City may do so and charge the resulting costs to the Contractor.
- B Detailed cleaning and adjusting requirements for specific trades or work are specified in sections pertaining to that trade or work.
- C No separate payment shall be made for any cleaning or adjusting required under this Section. Include the cost of such work in the contract prices for items listed in the Bid Document.

1.2 REQUIREMENTS OF REGULATORY AGENCIES

- A. Fire Protection – Store volatile waste in covered metal containers and remove from premises daily.
- B. Pollution Control – Conduct cleaning and disposal operations in compliance with local ordinances and anti-pollution laws.
 - 1 Burying of rubbish and materials on the project site shall not be permitted.
 - 2. Disposal of volatile fluid wastes and other chemical wastes in storm or sanitary sewer systems or into streams or waterways shall not be permitted.
- C. Safety Standards – Maintain the project in accordance with insurance and safety standards.

PART II: PRODUCTS – NOT USED

PART III: EXECUTION

3.1 DURING CONSTRUCTION

- A Oversee cleaning to ensure that the premises are maintained free from accumulations of waste material and rubbish. Do not allow waste

materials, rubbish and debris to accumulate and become unsightly or create a hazard. Provide containers and locate on site for collection of waste materials, rubbish, and debris.

B. At reasonable intervals during progress of the Work, collect and dispose of waste materials, rubbish, and debris. Handle waste in a controlled manner, do not drop or throw materials from heights.

C. Remove waste materials, rubbish, and debris from the site and legally dispose at public or private dumping area off the project site.

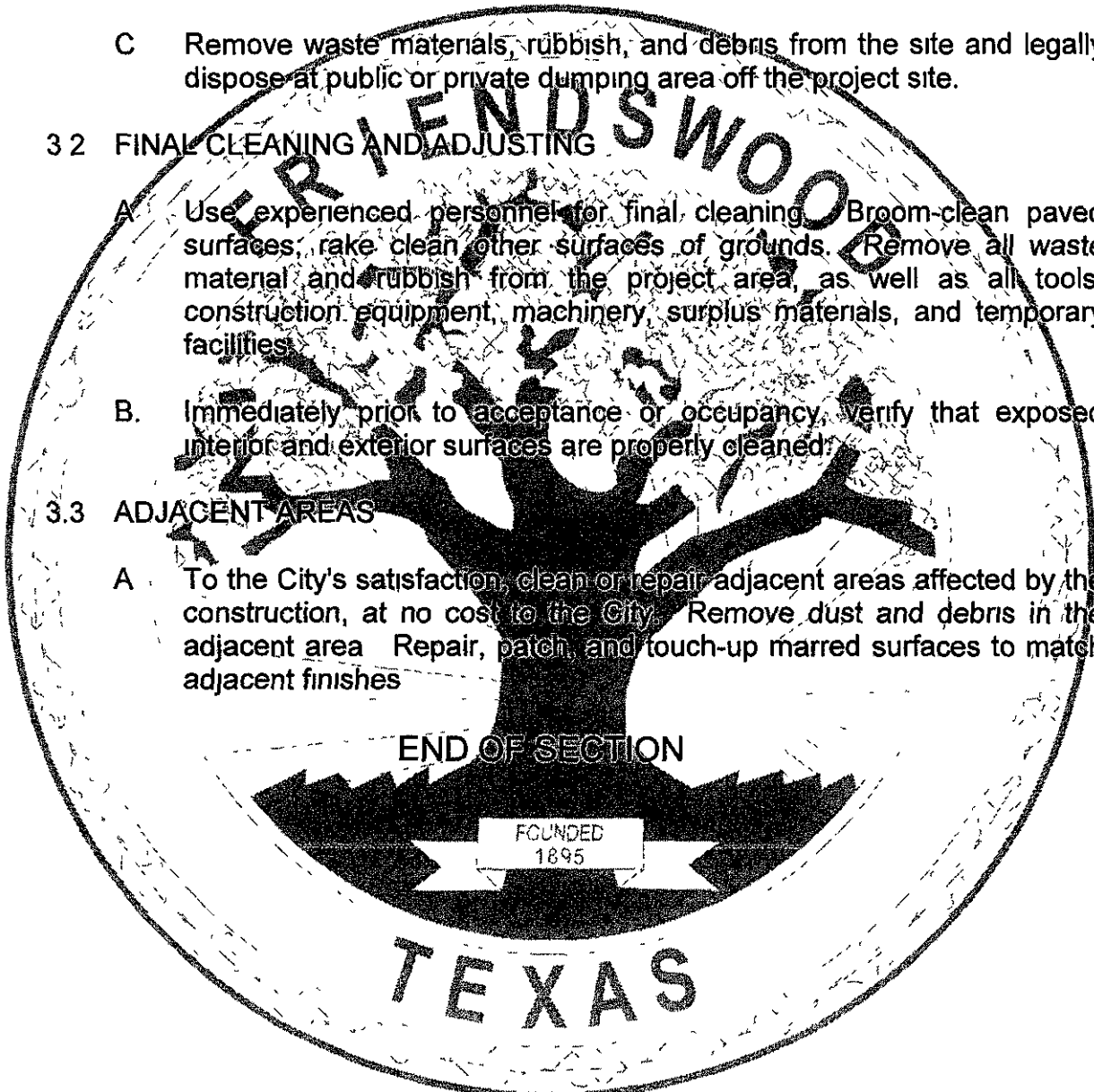
3.2 FINAL CLEANING AND ADJUSTING

A. Use experienced personnel for final cleaning. Broom-clean paved surfaces, rake clean other surfaces of grounds. Remove all waste material and rubbish from the project area, as well as all tools, construction equipment, machinery, surplus materials, and temporary facilities.

B. Immediately prior to acceptance or occupancy, verify that exposed interior and exterior surfaces are properly cleaned.

3.3 ADJACENT AREAS

A. To the City's satisfaction, clean or repair adjacent areas affected by the construction, at no cost to the City. Remove dust and debris in the adjacent area. Repair, patch, and touch-up marred surfaces to match adjacent finishes.



SECTION 01610

APPROVED PRODUCTS LIST

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Specify that materials and products that have been tested and approved for use in the City of Friendswood.
- B No separate payment shall be made for items listed in this Section. Cost of items shall be included in the individual Bid item in Document 00300 – Unit Price Form.

1.2 REFERENCES

- A CFTS – City of Friendswood Technical Specifications.
 - 1. Document 00300 – Unit Price Form.
 - 2. Section 01330 – Submittal Procedures.

1.3 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures.

PART II PRODUCTS

2.1 WATER PRODUCTS

- A FIRE HYDRANTS [Steamer Nozzle four and one-eighth inches (4 1/2 In), pumper nozzle two and one-half inches (2 1/2 In), N S.T. Thread]

- 1. Mueller Model Centurion, Modern Centurion, Super Centurion.
- 2. American Darling – Model B84-B or B-62-B

- B VALVES (AWWA Approved resilient Wedge Type)

- 1 Mueller
- 2 American Darling

C. BRASS GATE VALVES three –quarter inch (3/4 In) thru two inch (2 In)

- 1 Hammond
- 2 Watts.
- 3 Red and White
- 4 Matco Norca

- 5 Eagle
- 6 Cland K

D CHECK VALVES

- 1 Swing Check.
- 2 Mueller

E POLYVINYL CHLORIDE (PVC) PIPE (AWWA C900)

- 1 J-M Pipe.
- 2 Certainteed.
- 3 Capco.

F DUCTILE IRON PIPE (DIP) (AWWA C151, C150 and C600).

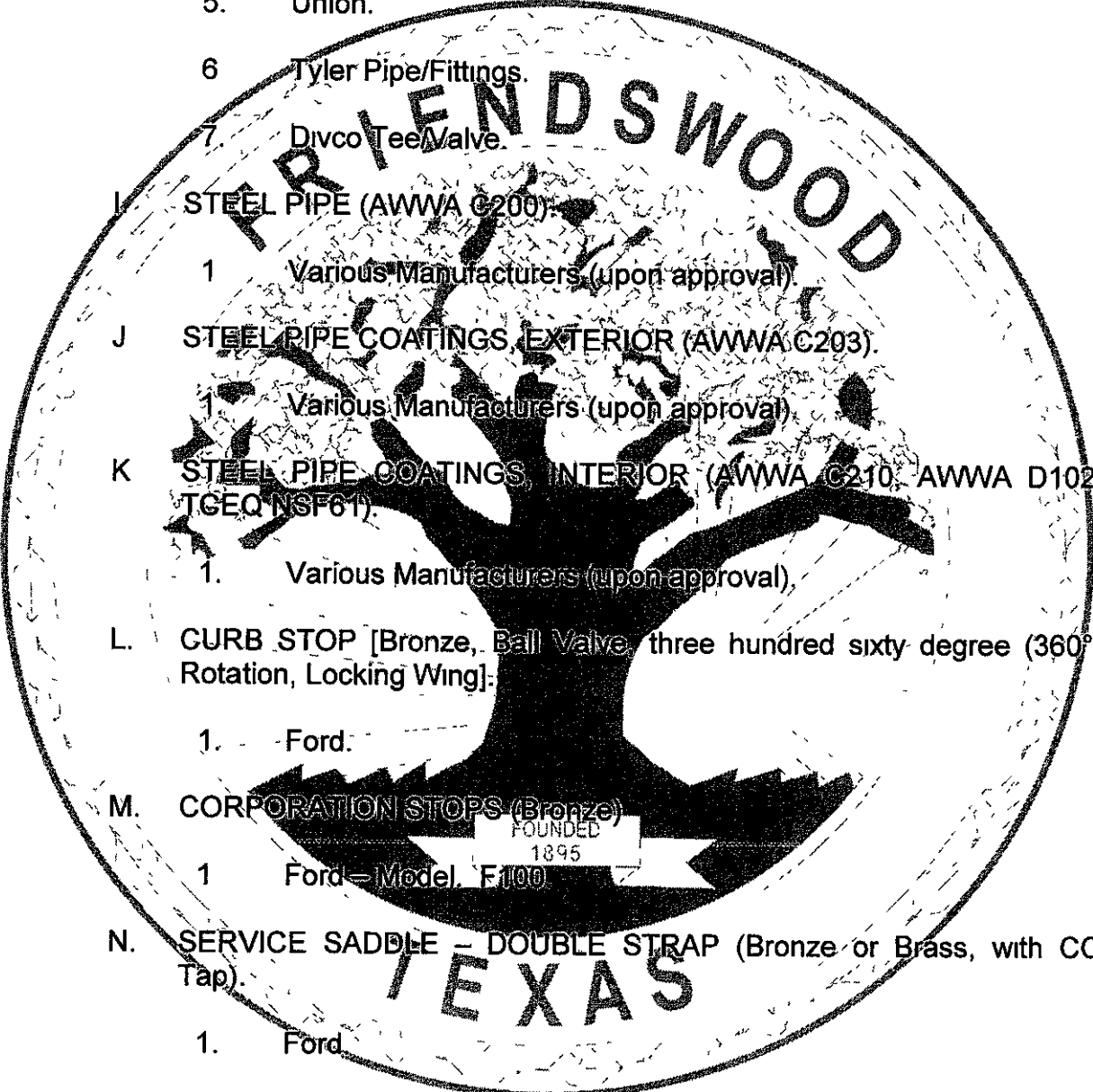
- 1 US Pipe.
- 2 American
- 3 McWane
- 4 Tyler Pipe.
- 5 Griffin.

G DUCTILE IRON PIPE (DIP) COATINGS [AWWA C104 (ANSI A21 4)]

- 1 Various Manufacturers (upon approval)

H FITTINGS [D.I P , AWWA C153/A21 53 84, AWWA C110(ANSI 21.10)].

1. US Pipe

- 
- 2 American.
- 3 Star
- 4 Sigma
5. Union.
- 6 Tyler Pipe/Fittings.
- 7 Divco Tee/Valve.
- I. STEEL PIPE (AWWA C200):
- 1 Various Manufacturers (upon approval).
- J. STEEL PIPE COATINGS, EXTERIOR (AWWA C203):
- 1 Various Manufacturers (upon approval).
- K. STEEL PIPE COATINGS, INTERIOR (AWWA C210, AWWA D102, TCEQ NSF61):
1. Various Manufacturers (upon approval).
- L. CURB STOP [Bronze, Ball Valve, three hundred sixty degree (360°) Rotation, Locking Wing]:
1. Ford.
- M. CORPORATION STOPS (Bronze)
- 1 Ford - Model F100
- N. SERVICE SADDLE - DOUBLE STRAP (Bronze or Brass, with CC Tap):
1. Ford.
- O. SERVICE SADDLE - SINGLE STRAP (Stainless Steel, Epoxy Coated Inside)
1. Romac
2. Smith Blair

P WATER METERS (AWWA Approved)

1. Sensus (Old Rockwell)

Q. SERVICE TUBBNG

- 1 Plastic SDR9 Glass 200 Polyethylene

- a. Driscopipe.

- b. Continental.

- c. Orangeburg

- 2 Copper

- a. Mueller Streamline.

- b. Holstar

- c. Wolverine

- d. Cerro (Type K).

R. TAPPING SLEEP AND VALVE (Stainless Steel, Full Clamp, MJ Valve).

1. JCM.

2. Mueller

3. Smith Blair

4. Romac

5. American

6. Power Seal

7. Clow.

8. Tyler Pipe

9. US Pipe

S AIR RELEASE VALVE [Two inch (2 In), Bonney Forge 3,000# threadolet].

1 APCO – No 145-c

T METER BOXES

1 Plastic

a. DFW

b. Gross

c. Brooks Products.

2 Concrete

a. Brooks Products.

b. Southern Precast

U POLYETHYLENE ENCASEMENT TUBING (8 Mil Minimum, ANSI/AWWA C105).

1. Various Manufacturers (upon approval).

2.2 SANITARY SEWER PRODUCTS

A GRAVITY FLOW PIPES (AWWA 150, AWWA 151, C600, C900)

1 P.V.C. < twelve inch (12 In) – SDR 26, minimum one hundred sixty pounds per square inch (160 psi) Ratings, flow line < twelve feet (12 Ft).

2 P.V.C. > twelve inch (12 In) – SDR 25, one hundred sixty-five pounds per square inch (165 psi) Rating

3 P.V.C., flow line > twelve feet (12 Ft) – SDR 18, C900

4 P.V.C., SDR 24, flow line < twelve feet (12 Ft)

5 Ductile Iron Pipe, Class 51 bituminous coated, C600

B FORCE MAIN

1 Ductile Iron Pipe, Class 51 with forty (40) mil polyliner

2. P V C., SDR 18, C900.

C COATING FOR MANHOLES [forty (40) mils Minimum Thickness]

- 1 Strong Seal MS-2

D LIFT STATION SUBMERSIBLE PUMPS.

- 1 Flyght
- 2 ABS.
- 3 Gorman Rupp

E LIFT STATION CONTROL PANELS

1. E.G. Controls
2. Consolidated Electric
3. Murphymatic
4. Sta-Con, Inc.
5. Automatic Control Systems

F NON-SHRINK GROUT.

1. Fosrok Preco Patch.

G MANHOLE COVER (City of Friendswood Standards) and Rings.

1. East Jordan Ironworks
2. Star Pipe Products, Inc.
3. Vulcan S VM 13.

H ENGINEERING FABRICS.

- 1 Trevira S1114

I MANHOLE INSERTS (No Flo/In-Flow Protector).

- 1 Contractor Specialties and Supply Co

J SEWER FITTING.

1. GPK

2 Multi Fitting (3034 OD)

3. Head.

4 J-M pipe/fittings

5. Vassallo

6 Plastic Trends

K PIPE CONNECTORS/FLEXIBLE COUPLINGS

1. Flow Control

2. Flow Seal

3. DFW

L MANHOLES (Concrete Prefab)

1 Moor-Tex

2 Southern Precast

3 Calvert.

4. Gifford Hill

5. Brooks Products.

6 Dalworth

7 Rinker

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2.3 STORM SEWER PRODUCTS

A ENGINEERING FABRICS

1 Trevira S1114

B MANHOLE COVERS (City of Friendswood), Rings and Inlet Grates

1 East Jordan Iron Works

2. Star Pipe Products, Inc

3 Vulcan – S. VM 19 Mod-32 inch,

C REINFORCED CONCRETE PIPE (ASTM C76, ANSI/ASTM C443, ASTM C506, ASTM C507)

1 Various Manufacturers (upon approval)

D CONCRETE BOX CULVERTS (ASTM C789)

1 Various Manufacturers (upon approval)

E CORRUGATED METAL PIPE (AASHTO M-35-82, AASHTO C-361).

1 Aluminized Steel Type 2 (AASHTO M-274-791)

a. Various Manufacturers (upon approval)

2. Precoated Galvanized Steel, ten (10) mil coating (AASHTO M-246)

a. Various Manufacturers (upon approval)

2.4 STREET PRODUCTS

A RAISED PAVEMENT MARKERS (Glass A,B,C & D)

1. Apex Universal.

B TYPE Y AND TYPE W TRAFFIC BUTTONS (ceramic only)

1 Apex Universal

C RAISED PAVEMENT MARKER ADHESIVE

1 Bundy Raised Pavement Marker Adhesive

D THERMOPLASTIC PAVEMENT MARKINGS (125 mil thick)

1 Flint Trading Inc – Premark LKF Roadmarking Material

E PREFABRICATED PAVEMENT MARKINGS (125 mil thick)

1 Flint Trading Inc – Premark LKF Roadmarking Material

F THERMOPLASTIC ADHESIVE.

1. Ashland Chemicals – Pliobond 10.

G CRACK AND JOINT SEALANT

- 1 Elastometric-type, Hot-pour Joint Sealant conforming to TxDOT Item 433 and TxDOT Departmental Material Specification D-9-6310. (various mfrs.)

H PAINTS.

- 1 Only Water Based conforming to TxDOT Specifications are approved for use in the City of Friendswood (various mfrs)

I. ROAD MARKER POSTS.

- 1 Carsonite #CRM-375

J REPLACEABLE DELINEATOR POST W/BASE [Epoxy or eight inch (8 In) Bundy Adhesive]

- 1 Repo Tm model

K CONCRETE CURING MEMBRANES

- 1 Liquid membrane-forming Curing Compound conforming to TxDOT Item 526 and TxDOT Departmental Material Specification D-9-8120 (various mfrs).

2.5 APPROVAL REQUIRED

- A Materials and manufactured items used in construction of a public infrastructure project shall be approved by the City of Friendswood prior to installation. Water, sanitary, storm and street system appurtenances shall be subject to the approved items as listed in the above Approved Products List. Items not appearing on this approved list shall not be used for construction of public infrastructure facilities in the City of Friendswood without prior approval.

PART III EXECUTION - NOT USED

END OF SECTION

SECTION 01630

PRODUCT SUBSTITUTION

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Options for making Product or process selections.
- B. Procedures for proposing equivalent Products or processes, including pre-approved, pre-qualified, and approved Products or processes.

1.2 DEFINITIONS

- A Product: As defined in Section 00500 - General Conditions. Product does not include machinery and equipment used for production, fabrication, conveying, and erection of the Work. Products may also include existing materials or components designated for reuse.
- B Process: Any proprietary system or method for installing system components resulting in an integral, functioning part of the Work. For this Section, the word Products includes Processes

1.3 SELECTION OPTIONS

- A Pre-approved Products: Construction products of certain manufacturers or Suppliers designated in Technical Specifications as "pre-approved." Products for this project are designated as pre-approved in the Technical Specifications. Products of other manufacturers or suppliers are not acceptable for this Project and shall not be considered under the submittal process for approving alternate products.
- B. Pre-qualified Products: Construction products of certain manufacturers or Suppliers designated in the Technical Specifications as "pre-qualified." Pre-qualified Products for this Project are designated as pre-qualified in the Technical Specifications. Products of other manufacturers or suppliers shall not be acceptable for this Project and shall not be considered under the submittal process for approving alternate products
- C Approved Products: Construction products of certain manufacturers or Suppliers designated in the Technical Specifications followed by words "or approved equal." Approval of alternate products not listed in the Technical Specifications may be obtained through provisions for;

product options and substitutions in Section 00500 – General Conditions, and by following submittal procedures specified in Section 01330 – Submittal Procedures. The procedure for approval of alternate products is not applicable to pre-approved or pre-qualified products

- D. Product Compatibility: To the maximum extent possible, provide Products that are of the same type or function from a single manufacturer, make, or source. Where more than one (1) choice is available, select Product that is compatible with other Products already selected, specified, or in use by the City.

1.4 CONTRACTOR'S RESPONSIBILITY

- A. Responsibility related to Product options and substitutions is defined in Section 00500 – General Conditions.
- B. Furnish information the Project Manager deems necessary to judge equivalency of alternate Product.
- C. Pay for laboratory testing, as well as any other review or examination costs, needed to establish equivalency between products in order to obtain information upon which the Project Manager can base a decision.
- D. If the Project Manager determines alternate product is not equal to that named in Technical Specifications, furnish one (1) of the specified Products.

1.5 CITY REVIEW

- A. Use alternate Products only when approved in writing by the Project Manager. The Project Manager's determination regarding acceptance of proposed alternate Product is final.
- B. Alternate Products shall be accepted if Products are judged by the Project Manager to be equivalent to specified Product or to offer substantial benefit to the City.
- C. The City retains the right to accept any Product deemed advantageous to the City, and similarly, to reject any product deemed not beneficial to the City.

1.6 SUBSTITUTION PROCEDURE

- A. Collect and assemble technical information applicable to the proposed Product to aid in determining equivalency as related to the approved Product specified.

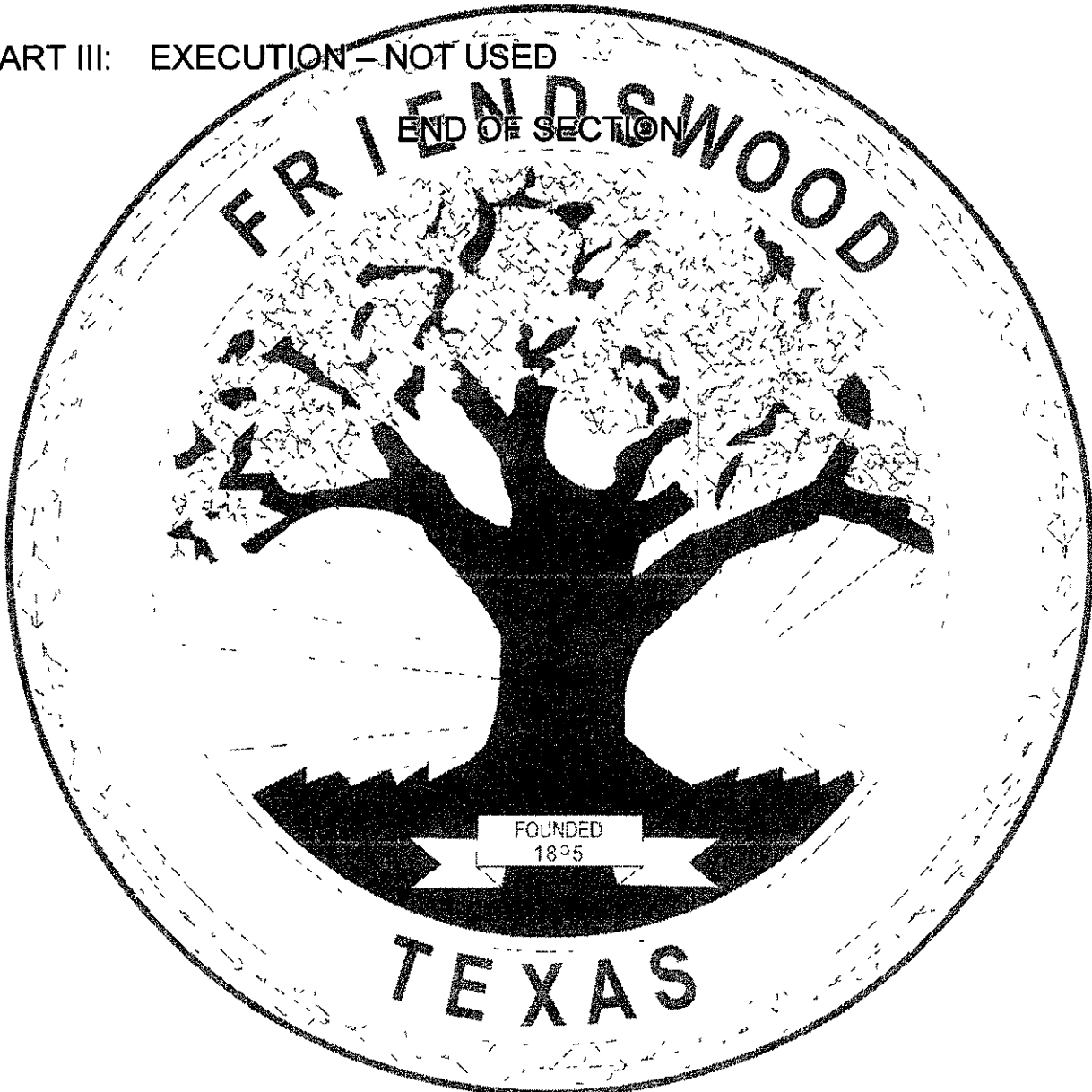
- B Submit a written request for a construction Product to be considered as an alternate Product.
- C Submit Product information after the effective date of the Contract and within the time period allowed for substitution submittals given in Section 00500 – General Conditions. After the submittal period has expired, requests for alternate Products shall be considered only when specified Product becomes unavailable because of conditions beyond the Contractor's control.
- D Submit a minimum of three (3) copies of each request for alternate Product approval. Include the following information:
1. Complete data substantiating compliance of proposed substitution with the Contract
 2. For Products:
 - a. Product identification, including manufacturer's name and address.
 - b. Manufacturer's literature with Product description, performance and test data, and reference standards.
 - c. Samples, as applicable.
 - d. Name and address of similar projects on which Product was used and date of installation. Include names of Owner, design consultant, and installing contractor
 3. For construction methods:
 - a. Detailed description of proposed method.
 - b. Drawings illustrating methods.
 4. Itemized comparison of proposed substitution with Product or method specified.
 5. Data relating to changes in Construction Schedule.
 6. Relation to separate contracts, if any
 7. Accurate cost data on proposed substitution in comparison with Product or method specified.

8 Other information requested by the Project Manager.

- E Approved alternate Products will be subject to the same review process as the specified Product would have been for Shop Drawings, Product Data, and Samples.

PART II: PRODUCTS – NOT USED

PART III: EXECUTION – NOT USED



Section 01640

CLEANING AND ADJUSTING

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A. The Contractor shall be responsible for cleaning and adjusting the Work. If the Contractor fails to clean and adjust the Work, the City may do so and charge the resulting costs to the Contractor.
- B. Detailed cleaning and adjusting requirements for specific trades or work are specified in sections pertaining to that trade or work.
- C. No separate payment shall be made for any cleaning or adjusting required under this Section. Include the cost of such work in the contract prices for items listed in the Bid Document.

1.2 REQUIREMENTS OF REGULATORY AGENCIES

- A. Fire Protection – Store volatile waste in covered metal containers and remove from premises daily.
- B. Pollution Control – Conduct cleaning and disposal operations in compliance with local ordinances and anti-pollution laws.
 - 1. Burying of rubbish and materials on the project site shall not be permitted.
 - 2. Disposal of volatile fluid wastes and other chemical wastes in storm or sanitary sewer systems or into streams or waterways shall not be permitted.
- C. Safety Standards – Maintain the project in accordance with insurance and safety standards.

PART II: PRODUCTS – NOT USED.

PART III: EXECUTION

3.1 DURING CONSTRUCTION

- A. Oversee cleaning to ensure that the premises are maintained free from accumulations of waste material and rubbish. Do not allow waste

materials, rubbish and debris to accumulate and become unsightly or create a hazard. Provide containers and locate on site for collection of waste materials, rubbish, and debris.

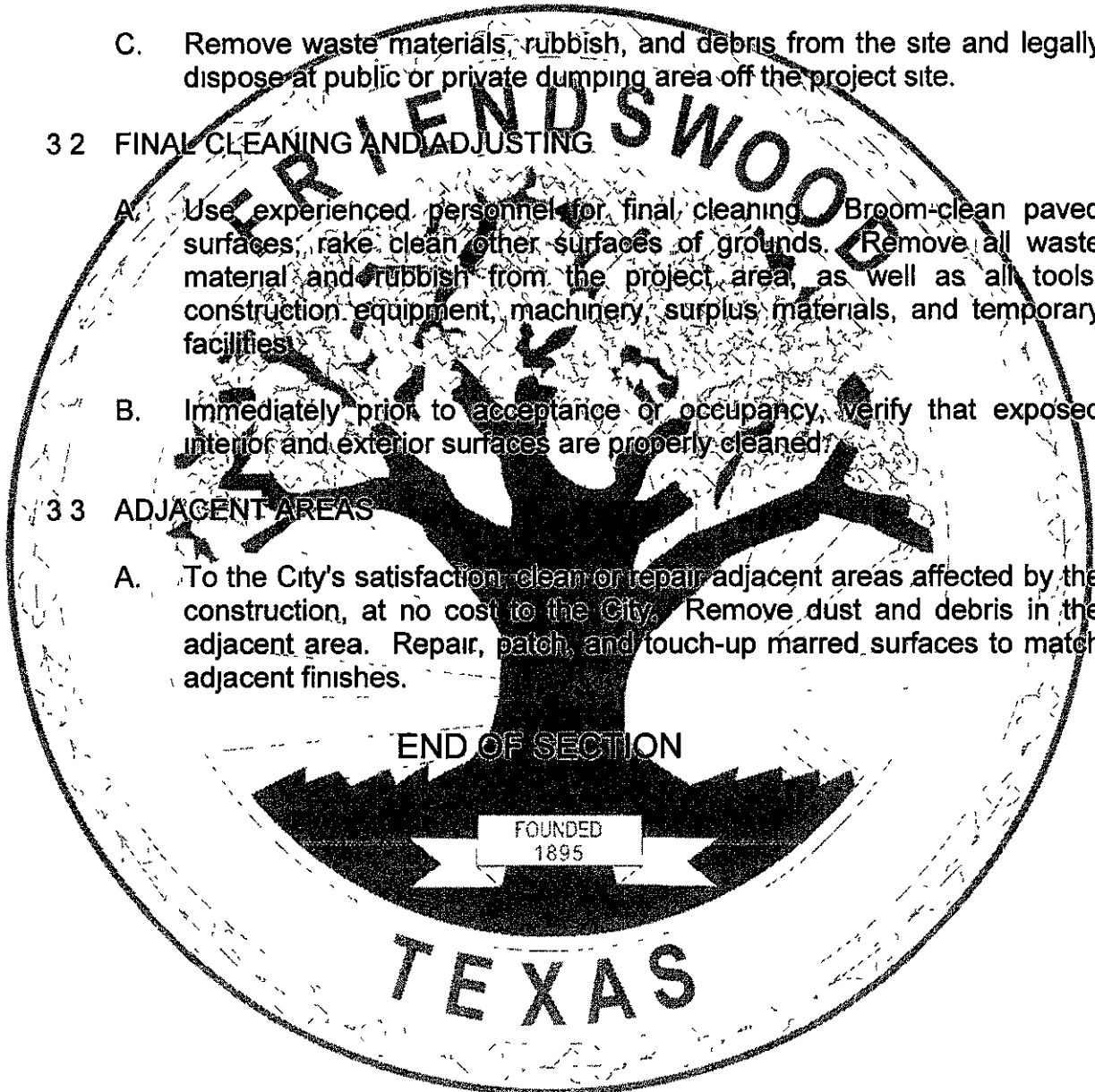
- B. At reasonable intervals during progress of the Work, collect and dispose of waste materials, rubbish, and debris. Handle waste in a controlled manner; do not drop or throw materials from heights.
- C. Remove waste materials, rubbish, and debris from the site and legally dispose at public or private dumping area off the project site.

3.2 FINAL CLEANING AND ADJUSTING

- A. Use experienced personnel for final cleaning. Broom-clean paved surfaces, rake clean other surfaces of grounds. Remove all waste material and rubbish from the project area, as well as all tools, construction equipment, machinery, surplus materials, and temporary facilities.
- B. Immediately prior to acceptance or occupancy, verify that exposed interior and exterior surfaces are properly cleaned.

3.3 ADJACENT AREAS

- A. To the City's satisfaction, clean or repair adjacent areas affected by the construction, at no cost to the City. Remove dust and debris in the adjacent area. Repair, patch, and touch-up marred surfaces to match adjacent finishes.



SECTION 01725

FIELD SURVEYING

PART I GENERAL

1.1 QUALITY CONTROL

- A. Conform to the State of Texas laws for surveys requiring licensed surveyors registered in the State of Texas. Employ a surveyor acceptable to the Project Manager if required by the Contract

1.2 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.
- B. Submit name, address, and telephone number of the Surveyor to the Project Manager before starting survey work.
- C. Submit documentation verifying accuracy of survey work on request.
- D. Submit certificate signed by the Surveyor, that show elevations and locations of the Work are in conformance with the Contract

1.3 PROJECT RECORD DOCUMENTS

- A. Maintain a complete and accurate log of control and survey work as it progresses.
- B. Prepare a certified survey setting forth dimensions, locations, angles, and elevations of construction and site work upon completion of foundation walls and major site improvements. Submit record documents under provisions of Section 01785 – Project Record Documents.

1.4 REFERENCES

- A CFTS – City of Friendswood Technical Specifications
 - 1. Section 00500 – General Conditions
 - 2. Section 01330 – Submittal Procedures
 - 3. Section 01785 – Project Record Documents

1.5 EXAMINATION

- A. Verify locations of survey control points prior to starting the Work. Notify the Project Manager immediately if any discrepancies are discovered.

1.6 SURVEY REFERENCE POINTS

- A. The City will establish survey control datum as provided in Section 00500 - General Conditions and as indicated on the Drawings. Inform the Project Manager in advance of time horizontal and vertical control points will be established so verification deemed necessary by the Project Manager may be done with minimum inconvenience to the City or the Contractor.
- B. Locate and protect survey control points prior to starting site work; preserve permanent reference points during construction
- C. Notify Project the Manager a minimum of forty-eight hours (48 Hrs) before relocation of reference points is needed due to changes in grades or other reasons.
- D. Promptly report loss or destruction of reference points to the Project Manager.
- E. Reimburse the City for cost of reestablishment of permanent reference points disturbed by construction operations

1.7 SURVEY REQUIREMENTS

- A. Utilize recognized engineering survey practices.
- B. Establish a minimum of two (2) permanent benchmarks on site, referenced to established control points. Record horizontal and vertical location data in the Project Record Documents
- C. Establish elevations, lines and levels to provide quantities required for measurement and payment and for appropriate controls for the Work. Locate and lay out the following with appropriate instruments:
 - 1. Site improvements including grading, fill and topsoil placement, utilities, and footings and slabs
 - 2. Grid or axis for structures.
 - 3. Building foundation, column locations, and ground floor elevations

D Periodically verify layouts

PART II. PRODUCTS – NOT USED

PART III: EXECUTION – NOT USED



SECTION 01730

CUTTING AND PATCHING

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Cutting, patching and fitting of the Work or work under construction. Coordinating installation or connection of the Work to existing facilities, or uncovering work for access, inspection or testing and related submittals.

1.2 CUTTING AND PATCHING

- A. Perform activities to avoid interference with facility operations and work of others in accordance with Section 00500 - General Conditions of Contract.
- B. Execute cutting and patching, including excavation, backfill and fitting to:
1. Remove and replace defective work or work not conforming to the Drawings and Technical Specifications;
 2. Take samples of installed work as required for testing,
 3. Remove construction required to provide for specified alterations or additions to existing work;
 4. Uncover work to allow inspection or reinspection by the Project Manager or regulatory agencies having jurisdiction;
 5. Connect uninstalled work to completed work in proper sequence;
 6. Remove or relocate existing utilities and pipes that obstruct work;
 7. Make connections or alterations to existing or new facilities,
 8. Provide openings, channels, chases and flues and cut, patch, and finish, if required, or
 9. Provide protection for other portions of the Work

- C Restore existing work to a condition equal to or better than that which existed prior to cutting and patching, and to standards required by the Technical Specifications.
- D Support, anchor, attach, match, trim and seal materials to work of others Unless otherwise specified, Furnish and Install sleeves, inserts, and hangers required for execution of the Work
- E Provide shoring, bracing and support necessary to maintain structural integrity and to protect adjacent work from damage during cutting and patching. Request written approval from the Project Manager, before cutting structural members such as beams, anchors, lintels, or other supports. Follow approved submittals, as applicable.
- F Match new materials to existing materials by bonding, lapping, mechanically tying, anchoring or other effective means in order to prevent cracks and to minimize evidence of patching. Conceal effects of demolition and patching by blending new construction to existing surfaces. Avoid obvious breaks, joints or changes of surface appearance unless shown on the Drawings or authorized by the Project Manager.

1.3 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures
- B. Submit a written request to the Project Manager for consent to proceed, before conducting cutting operations that might affect structural integrity, design function, City operations, or work of another contractor.
- C Include the following in submittal:
 - 1 Identification of Project
 - 2 Description of affected work
 - 3 Necessity for cutting
 - 4 Effect on other work and on structural integrity.
 - 5. Describe the proposed work including.
 - a Scope of cutting and patching
 - b. Contractor, Subcontractor or Supplier who will execute the Work.

- c. Proposed Products.
- d. Extent of refinishing
- e. Schedule of operations

6 Alternatives to cutting and patching.

D When work conditions or schedules dictate the need for change of materials or methods, submit a written recommendation to the Project Manager that includes:

- 1. Conditions necessitating the change.
- 2. Recommendations for alternative materials or methods, and
- 3. Submittals required for proposed substitutions.

E Notify the Project Manager in writing when work will be uncovered for observation. Do not begin cutting or patching operations until authorized by the Project Manager.

1.4 REFERENCES

A. CFTS – City of Friendswood Technical Specifications.

- 1. Section 00500 – General Conditions
- 2. Section 01330 – Submittal Procedures

1.5 CONNECTIONS TO EXISTING FACILITIES

A. Perform construction operations necessary to complete connections and tie-ins to existing facilities. Keep existing facilities in continuous operation unless otherwise permitted in the Technical Specifications or approved in writing by the Project Manager

B. Coordinate interruption of service requiring connection to existing facilities with the Project Manager. Do not bypass wastewater or sludge to waterways. Provide temporary pumping facilities to handle wastewater if necessary. Use temporary bulkheads to minimize disruption. Provide temporary power and piping to facilitate construction where necessary

C. Submit a detailed schedule of proposed connections, including shut-downs and tie-ins. Include proposed time and date as well as anticipated duration of work. Coordinate the connection schedule with

the construction schedule

1. Submit specific times and dates to the Project Manager a minimum of forty-eight hours (48 Hrs) in advance of proposed work

D. Procedures and Operations:

1. Operate existing pumps, valves and gates in required sequence under supervision of the Project Manager. Do not operate valves, gates or other items of equipment without the Project Manager's knowledge.
2. If possible, test equipment under operating conditions before making final tie-ins to connect equipment to existing facility.
3. Coordinate work and schedules. Notify the Project Manager a minimum of forty-eight hours (48 Hrs) before shutdowns or bypasses are required.

PART II: PRODUCTS – NOT USED

PART III EXECUTION – NOT USED

END OF SECTION

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SECTION 01735

PROCEDURE FOR VALVE ASSISTANCE

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A. The City of Friendswood employees shall operate all existing valves. The Contractor's employees may operate new valves included in the Work prior to acceptance by the City.

1.2 PROCEDURE

- A. Perform activities listed in this Section. Utility Division personnel shall also follow these procedures when completing a service request, Document 01740 – Utility Division Assistance Request, from individual Contractors, through Project Manager, for operation of existing water valves.

1.3 SUBMITTALS

- A. Submit request for work order planning meetings in accordance with this Section.

1.4 REFERENCES

- A. CFTS – City of Friendswood Technical Specifications
1. Document 01740 – Utility Division Assistance Request.

1.5 CANCELLATION

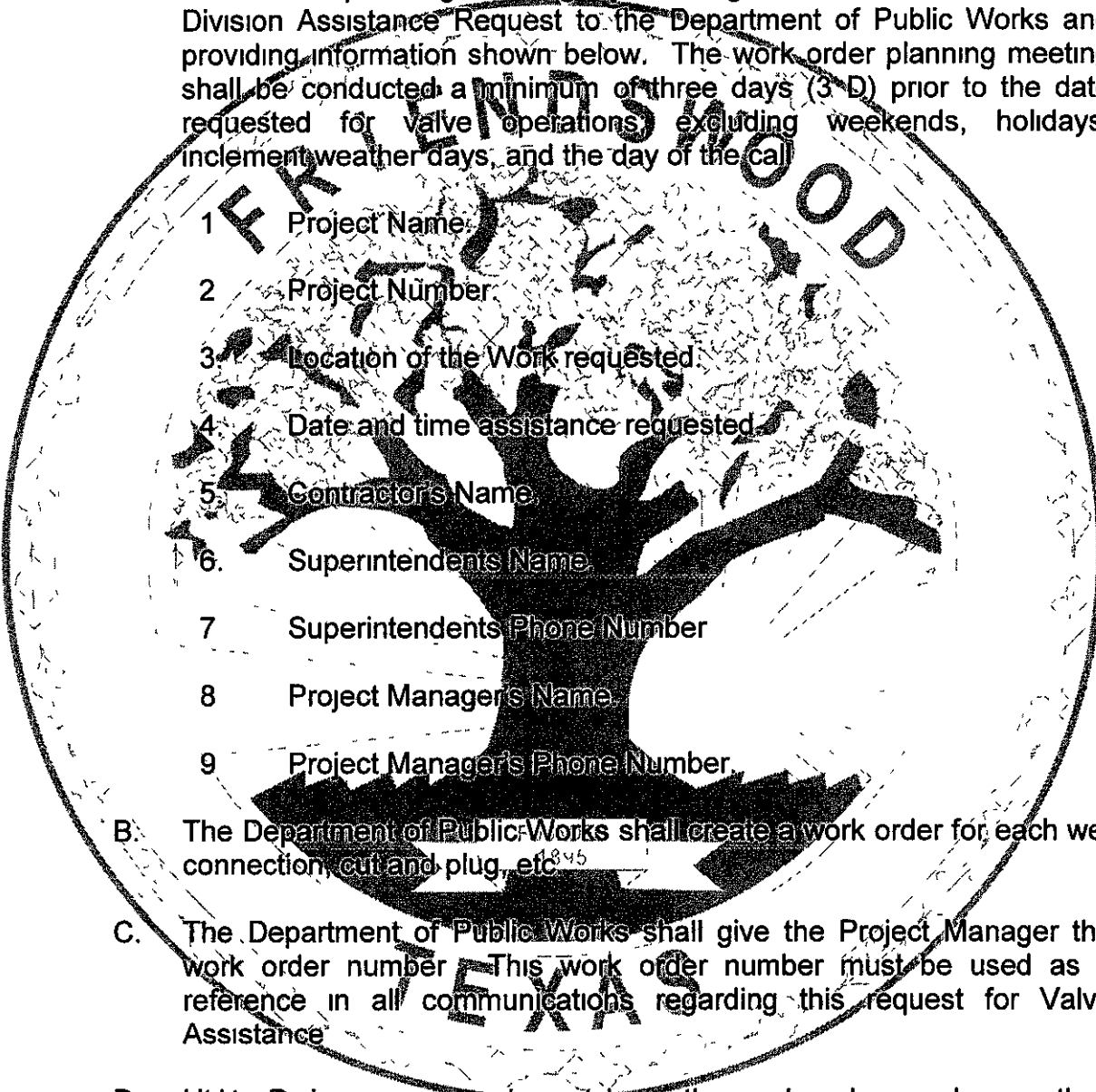
- A. The Contractor, the Project Manager, or Utilities Division may cancel a scheduled valve assistance appointment at no extra cost or payment to the Contractor. The Contractor shall notify the Project Manager a minimum of twenty-four hours (24 Hrs) in advance of scheduled valve operation. The Project Manager shall notify the Department of Public Works immediately upon receipt of cancellation notice. Cancellation may be caused by bad weather, preparation work taking longer than anticipated or unforeseen delays by one (1) or more of the three (3) parties.

PART II PRODUCTS – NOT USED.

PART III: EXECUTION

3 1 ROUTINE VALVE ASSISTANCE REQUEST

- A. When notified by the Contractor, the Project Manager shall schedule a work order planning meeting by sending Document 01740 – Utility Division Assistance Request to the Department of Public Works and providing information shown below. The work order planning meeting shall be conducted a minimum of three days (3-D) prior to the date requested for valve operations, excluding weekends, holidays, inclement weather days, and the day of the call.

- 
- 1 Project Name
 - 2 Project Number
 - 3 Location of the Work requested
 - 4 Date and time assistance requested
 - 5 Contractor's Name
 - 6 Superintendents Name
 - 7 Superintendents Phone Number
 - 8 Project Manager's Name
 - 9 Project Manager's Phone Number

- B. The Department of Public Works shall create a work order for each wet connection, cut and plug, etc.
- C. The Department of Public Works shall give the Project Manager the work order number. This work order number must be used as a reference in all communications regarding this request for Valve Assistance.
- D. Utility Division personnel must have the work order number on their route sheet. When Utility Division personnel arrive at the job site for the Work Order Planning Meeting between the Project Manager, the Contractor, and Utility Division personnel, they will verify the street intersection and work order number with the Project Manager before beginning Work Order Planning Meeting.

- E During Work Order Planning Meeting, the work to be performed will be outlined and the actual date the work shall be performed will be mutually determined by the Project Manager, the Contractor and City's Utility Division personnel, based upon relevant factors such as preparatory work needed, customer requirements, etc
- F Utility Division personnel shall perform work specifically outlined in the work order requested. Also, Utility Division personnel shall operate only existing water valves. The Project Manager shall contact the Department of Public Works and request a new work order for additional work.
- G Utility Division personnel will contact the dispatcher and advise when the job is complete. Utility Division personnel will list all appropriate information on the Crew Activity Report.
- H Should Utility Division personnel not be able to keep an appointment to provide valve assistance, Utility Division shall provide notification to appropriate Project Manager by phone at least twenty-four hours prior (24 Hrs), with that fact and rescheduling information, if available.
- I The Project Manager shall notify the Department of Public Works if Utility Division personnel have not arrived at the site within thirty minutes (30 Min) of scheduled appointment. If the Contractor is not ready when Utility Division personnel arrives to provide valve assistance, the City shall charge the Contractor sixty-five dollars (\$65.00) per hour, per employee, starting thirty minutes (30 Min) after the scheduled appointment time, minimum one hour (1 Hr) charge.
- J The Contractor shall not be due delay claims or downtime if Utility Division has notified the Project Manager that they will not be able to provide valve assistance as scheduled.
- K Test installed new valves in the presence of the Project Manager and the Utilities Supervisor during the substantial completion inspection. Place new valves in open position on or before the Date of Substantial Completion.
- L The Project Manager shall notify, in writing, the Department of Public Works one month (1 Mo) before the one year (1 Yr) maintenance bond expires to report any problems they have with new water lines. The Project Manager shall notify the Contractor about these problems.

3.2 EMERGENCY REQUEST FOR VALVE ASSISTANCE PROCEDURE

- A When notified by the Contractor, the Project Manager shall request emergency Valve Assistance due to a broken line/service, etc by

calling the Department of Public Works at (281) 996-3382 and providing the following information

- 1 Project Name
 - 2 Project Number
 - 3 Location of the Work requested
 - 4 Nature of the emergency
 - 5 Contractor's Name
 - 6 Superintendents Name
 - 7 Superintendents Phone Number
 - 8 Project Manager's Name
 - 9 Project Manager's Phone Number
- B The Department of Public Works shall create an emergency work order number and describe the work to be performed.
- C The Department of Public Works shall give the Project Manager the emergency work order number. Reference work order number in all communications regarding request for Valve Assistance
- D The Department of Public Works shall contact Utility Division personnel and assign the emergency work order
- E. Utility Division personnel must have the emergency work order number on the route sheet. When Utility Division personnel arrive at the job site for emergency work, they shall verify the street intersection and emergency work order number with the Project Manager prior to beginning the work requested for operating existing water valves. Utility Division personnel shall coordinate verification of street intersection and work order number with the Project Manager prior to performing work

3.3 AFTER HOURS EMERGENCY VALVE ASSISTANCE

- A If, after normal working hours, it becomes necessary for valve assistance, the Contractor or the Project Manager shall call the Police Dispatcher at (281) 996-3300 and supply said dispatcher with the following information

- 1 Caller's Name

- 2 Caller's Title
- 3 Caller's Employer
- 4 Nature of the emergency
- 5 Location of the emergency

- B The Dispatcher shall follow standard procedures and notify the Utility Division Person On-call and relay this information
- C The Utility Division Person On-call shall notify the Project Manager of the emergency and both shall go to the location and assess the emergency situation
- D The Utility Division Person On-call shall determine if other personnel are needed, and procedure to call them in as needed. The Utility Division Person On-call shall document all activities, equipment, personnel and time used, and will send it to the Department of Public Works the following regular business day

END OF SECTION

DOCUMENT 01740

UTILITY DIVISION ASSISTANCE REQUEST

DATE REQUESTED: {INSERT DATE}

TIME REQUESTED: {INSERT TIME}

Type of Assistance Required:

- ☐ Valve Operation ☐ Water and Sewer Utilities locate
☐ Bacterial Testing (BAC-T) ☐ Flushing Waterlines

Project Name: {INSERT PROJECT NAME}

Project Number: {INSERT PROJECT #}

Company Requesting Assistance: {INSERT CONTRACTOR NAME}

Company Contact Name: {INSERT CONTRACTOR CONTACT}

Company Telephone: {INSERT CONTACT PHONE #}

Company Fax: {INSERT CONTRACTOR FAX}

Type of Work: {INSERT CONTRACTOR WORK TYPE}

Location of Work: {INSERT ASSISTANCE LOCATION}

Nearest Cross Street: {INSERT NEAREST CROSS STREET}

Project Manager: {INSERT PROJECT MANAGER}

Project Manager Phone Number: {INSERT PM PHONE #}

DEPARTMENT OF PUBLIC WORKS USE ONLY

Received By: _____

Date Received _____ Time Received _____

END OF DOCUMENT

SECTION 01745

SITE RESTORATION

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Restoration of site affected by the Work in public or private property, including pavement, esplanades, sidewalks, driveways, fences, lawns and landscaping

1.2 MEASUREMENT AND PAYMENT

A Unit Prices:

1. Payment for restoration of the Project site disturbed by utility construction operations is on a linear foot basis. Measurement will be as provided for corresponding utility in each Technical Specification section. No separate payment made for branch pipe, valves and other associated work for utilities. Measurement for restoration with multiple utilities within the same right-of-way will be on a linear foot basis for only one (1) utility.
2. No separate payment made for facility or roadway projects. Include cost in the surface improvements associated with the facility or roadway construction.
3. Payment includes required site restoration within the right-of-way or easement, regardless of size or type of pipe, method of construction, paved or unpaved areas or thickness and width of pavement.
4. No separate payment made for site restoration for service connections under this Section. Include cost in appropriate utility section.
5. Refer to Section 01270 — Measurement and Payment for Unit Price procedures.

B Total Stipulated Price (Lump Sum) Contracts

1. If Contract is Total Stipulated Price Contract, include payment for work under this section in Total Stipulated Price.

1 3 REFERENCES

A CFTS – City of Friendswood Technical Specifications

- 1 Section 01110 – Scope of Work
- 2 Section 01270 – Measurement and Payment
- 3 Section 01330 – Submittal Procedures
- 4 Section 01560 – Tree and Plant Protection
- 5 Section 01580 – Waste Disposal
- 6 Section 02455 – Disinfection of Water Lines
- 7 Section 02845 – Pavement Repair and Resurfacing
- 8 Section 02910 – Hydromulch Seeding
- 9 Section 02915 – Sodding

1 4 DEFINITIONS

- A** Phase Locations identified on the plans and listed in Section 01110 Summary of Work under Work Sequence
- B** Site Restoration Replacement or reconstruction of Site Improvements located in rights-of-way, easements, public property, and private property affected or altered by the Work
- 1 Disturbed areas outside easements, rights-of-way or other designation of the proposed Work Area shall be restored at the Contractors expense
 - 2 Temporary construction Easements or any other areas used for the benefit of the Contractor is incidental to the Work and shall be restored at no cost to the City
- C** Site Improvement Includes pavement, curbs and gutters, esplanades, sidewalks, driveways, fences, lawns, irrigation systems, landscaping, and other improvements in existence at the Project site before commencement of construction operations

1 5 SUBMITTALS

- A** Conform to requirements of Section 01330 -Submittal Procedures

- B Schedule of testing, service connections, abandonment, backfill, and site restoration
- C Sample of notices to residents outlining their responsibility for maintenance of site improvements adjacent to the Project that are not disturbed by construction operations

1 6 SCHEDULING

- A. Schedule testing, service connections, abandonment, backfill and site restoration immediately following completion of pipe laying work or paving within each block or line segment.
- B. Phased Construction:
 - 1. Commencement of subsequent Phase will follow scheduling of site restoration of prior Phase. Limit work to a maximum of two (2) Phases of the project.
- C. Construction of Projects with no Phases listed in Section 01110 – Summary of Work:
 - 1. Complete site restoration prior to disturbing over fifty percent (50%) of total project linear feet or two thousand linear feet (2000 Lf), whichever is greater, of right-of-way or easement.
 - 2. Limit work to a maximum of fifty percent (50%) of total project linear feet or two thousand linear feet (2000 Lf), whichever is greater, of right-of-way and easement. Commence work in additional right-of-way or easement after completion of site restoration.

PART II: PRODUCTS

2 1 MATERIALS

- A. Pavement, Sidewalks and Driveways: Materials specified in Section 02845 – Pavement Repair and Resurfacing.
- B. Seeding and Sodding. Sod specified in Section 02915 – Sodding and Seed specified in Section 02910 – Hydromulch Seeding.
- C. Trees, Shrubs and Plantings: Conform to requirements of Section 01560 – Tree and Plant Protection

PART III. EXECUTION

3 1 Preparatory Work

A Provide cleanup and restoration crews to work closely behind pipe laying and roadway construction crews, and where necessary, during testing, service restoration, abandonment, backfill and surface restoration

B. Water Lines. Unless otherwise approved by the Project Manager, comply with the following:

1. Once the Project Manager approves work within a Phase, immediately begin preparatory work for disinfection effort
2. No later than three days (3 D) after completing disinfection preparatory work, submit to City appropriate request for disinfection.
3. If City fails to perform initial disinfection of lines in accordance with Section 2455 – Disinfection of Water Lines, within seven days (7 D) from submission of appropriate request, and if approved by the Project Manager, pipe laying operations may continue beyond approved limits until the City responds.
4. Immediately after transfer of services, begin abandonment of old water lines and site restoration

C Wastewater Lines

1. Once the Project Manager approves work within a Line Segment, immediately begin preparatory work for testing effort
2. No later than three days (3 D) after completing preparatory work for testing, initiate testing work
3. Immediately after transfer of service connections, begin abandonment of old wastewater lines, and site restoration.

D Street Construction and Paving Projects

1. Once the Project Manager approves work within a block, immediately begin preparatory work for sidewalk construction, sodding and hydromulching and tree planting.
2. No later than seven days (7 D) after completing preparatory work, initiate construction

3.2 CLEANING

- A Remove debris and trash to maintain a clean and orderly site in accordance with requirements of the General Conditions and Section 01580 – Waste Material Disposal.

3.3 LANDSCAPING AND FENCES

A Seeding and Sodding

1. Remove construction debris and level area with bank sand so that new grass surface matches level of existing grass and maintains pre-construction drainage patterns. Level and fill minor ruts or depressions caused by construction operations with bank sand, where grass is still viable.
2. Restore previously existing turfed areas with sod and fertilize in accordance with Section 02915 – Sodding. Sod to match existing turf.
3. Restore unpaved areas not requiring sodding with hydromulch seeding conforming to Section 02910 – Hydromulch Seeding.

B. Trees, Shrubbery and Plants

1. Remove and replant trees, shrubs, and plants in accordance with requirements of Section 01560 – Tree and Plant Protection.

C. Fence Replacement

1. Replace removed or damaged fencing to equal or better condition than existed prior to construction, including concrete footings and mow strips. Provide new wood posts, top and bottom railing and panels. Metal fencing material, not damaged by the Work, may be reused.
2. Remove and dispose of damaged or substandard material.

3.4 MAINTENANCE

- A. Maintain shrubs, plantings, sodded areas and seeded areas
- B. Replace shrubs, plantings and seeded or sodded areas that fail to become established.

- C Refer to Section 01560 – Tree and Plant Protection, Section 02915 – Hydromulch Seeding and Section 02910 – Sodding for maintenance requirements.

END OF SECTION



SECTION 01755

STARTING SYSTEMS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Starting systems.
- B. Demonstration and instructions.
- C. Testing, adjusting and balancing.

PART II: PRODUCTS – Not Used

PART III: EXECUTION

3.1 PREPARATION

- A. Coordinate schedule for startup of various equipment and systems.
- B. Notify the Project Manager seven (7) days prior to startup of each item.
- C. Verify each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or other damage-causing conditions.
- D. Verify tests, meter readings, and specified electrical characteristics agree with those required by equipment or system manufacturer.
- E. Verify wiring and support components for equipment are complete and tested.
- F. Execute start-up under supervision in accordance with manufacturer's instructions.
- G. When specified in individual Technical Specification sections, require manufacturer to provide an authorized representative to be present at the site to inspect, check and approve equipment or system installation prior to start-up, and to supervise placing equipment or system in operation.
- H. Submit written report indicating that equipment or system has been properly installed and is functioning correctly.

3.2 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of Products to the Project Manager two (2) weeks prior to Date of Substantial Completion.
- B. Utilize O & M Manuals as the basis for instruction. Review contents of manual with the Project Manager in detail to explain aspects of operation and maintenance.
- C. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at the equipment location.
- D. Prepare and insert additional data in O & M Manuals when the need for additional data becomes apparent during instruction.
- E. At a minimum, the Contractor will demonstrate the following:
 - 1. Products and procedures to be used in maintaining various surfaces, e.g., counter tops, toilet partitions, tile floors and carpeting.
 - 2. procedures to set and maintain landscape irrigation system;
 - 3. procedures to set and maintain security and fire alarm systems, and
 - 4. procedures to set and maintain HVAC systems.

3.3 TESTING, ADJUSTING AND BALANCING

- A. The Contractor shall appoint, employ and pay for the services of an independent firm to perform testing, adjusting and balancing.
- B. Submit reports by the independent firm to the Project Manager describing observations and results of tests and signifying compliance or non-compliance with specified requirements and requirements of the Contract.

END OF SECTION

SECTION 01770

CLOSEOUT PROCEDURES

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Procedures to establish Date of Substantial Completion.
- B. Closeout procedures for final submittals, O & M data, warranties, spare parts and maintenance materials.
- C. Texas Department of Licensing and Regulation (TDLR) inspection for Texas Accessibility Standards (TAS) compliance.

1.2 SUBSTANTIAL COMPLETION

- A. Comply with Section 00500 - General Conditions regarding Date of Substantial Completion when Contractor considers the Work, or portion thereof designated by the Project Manager, to be substantially complete.
- B. Insure the following items have been completed when included in the Work, prior to presenting a list of items to be inspected by the Project Manager for issuance of a Certificate of Substantial Completion.
 - 1. Cutting, plugging, and abandoning of water, wastewater, and storm sewer lines, as required by the Contract Documents for each item.
 - 2. Construction of, and repairs to pavement, driveways, sidewalks, and curbs and gutters.
 - 3. Sodding and hydromulch seeding, unless waived by the Project Manager in writing.
 - 4. General clean up including pavement markings, transfer of services, successful testing and landscape;
 - 5. Additional requirements contained in Section 01110 - Summary of Work
- C. Assist the Project Manager with inspection of the Contractor's list of items and complete or correct the items, including items added by the Project Manager, within specified time period

- D. Should the Project Manager's inspection show failure of the Contractor to comply with requirements to obtain Date of Substantial Completion, including those items in Paragraph 1 2.B in this Section, the Contractor shall complete or correct the items, before requesting another inspection by the Project Manager

1.3 REFERENCES

- A CFTS – City of Friendswood Technical Specifications
1. Section 00500 – General Conditions
 2. Section 01110 – Summary of Work
 3. Section 01330 – Submittal Procedures
 4. Section 01785 – Project Record Documents
- B TAS – Texas Accessibility Standards
- C. TDLR – Texas Department of Licensing and Regulation

1.4 CLOSEOUT PROCEDURES

- A Comply with Section 00500 – General Conditions regarding final completion and final payment when the Work is complete and ready for the Project Manager's final inspection
- B. Provide Project Record Documents in accordance with Section 01785 – Project Record Documents.
- C. Complete or correct items on punch list with no new items added
Address new items during warranty period
- D The City will occupy portions of the Work as specified in other sections

1.5 FINAL CLEANING

- A Execute final cleaning prior to final inspection.
- B For facilities, clean interior and exterior glass and surfaces exposed to view; remove temporary labels, stains and foreign substances, polish transparent and glossy surfaces, vacuum carpeted and soft surfaces
- C Clean equipment and fixtures to sanitary condition.

- D Clean or replace filters of operating equipment
- E Clean debris from roofs, gutters, down spouts, and drainage systems.
- F Clean site, sweep paved areas, and rake clean landscaped surfaces
- G Remove waste and surplus materials, rubbish, and temporary construction facilities from site following final test of utilities and completion of the Work

1.6 ADJUSTING

- A Adjust operating equipment to ensure smooth and unhindered operation. Value of this testing and adjusting is five percent (5%) of Lump Sum Price in the Schedule of Values for item being tested

1.7 OPERATION AND MAINTENANCE DATA

- A. Submit O & M data as noted in Section 01330 – Submittal Procedures.
- B. Five percent (5%) of lump sum amount of each piece of equipment as indicated in Schedule of Unit Price Work or Schedule of Values will be paid after the required O & M data submittals are received and approved by the Project Manager.

1.8 WARRANTIES

- A. Provide one (1) original of each warranty from Subcontractors, Suppliers, and Manufacturers.
- B. Provide Table of Contents and assemble warranties in a 3-ring/D binder with durable plastic cover.
- C. Submit warranties prior to final progress payment
- D. Warranties shall commence in accordance with the requirements in Section 00500 – General Conditions

1.9 SPARE PARTS AND MAINTENANCE MATERIALS

- A Provide Products, spare parts, maintenance and extra materials in quantities specified in individual Technical Specification sections.
- B. Deliver to a location within the City limits as directed by the Project Manager. Applicable items must be delivered prior to issuance of a final Certificate for Payment

PART II PRODUCTS – NOT USED.

PART III. EXECUTION – NOT USED.

END OF SECTION



SECTION 01780

OPERATIONS AND MAINTENANCE DATA

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Submittal requirements for equipment and facility Operations and Maintenance (O & M) Manuals

1.2 MEASUREMENT AND PAYMENT

- A Measurement for equipment O & M Manuals is on a lump sum basis equal to five percent (5%) of the individual equipment value contained in Schedule of Unit Prices or Schedule of Values. The lump sum amount may be included in the first (1st) Progress Payment following approval of the O & M Manuals by the Project Manager.

1.3 REFERENCES

- A CFTS – City of Friendswood Technical Specifications.
- 1 Section 00005 – Table of Contents.
 - 2 Section 01330 – Submittal Procedures

1.4 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures. Submit a list of O & M Manuals and parts manuals for equipment to be incorporated into the Work.
- B Submit documents with eight and one-half inch by eleven inch (8-1/2 In x 11 In) text pages, bound in three (3) ringed binders with durable plastic covers.
- C Print "OPERATION AND MAINTENANCE INSTRUCTIONS, Project name, and subject matter of binder on covers when multiple binders are required.
- D Subdivide contents with permanent page dividers, logically organized according to the Section 00005 – Table of Contents, with tab titling clearly printed under reinforced laminated plastic tabs.
- E O & M Manual contents: Prepare a Table of Contents for each volume,

with each Product or system description identified

1. Part I – Directory. Listing of names, addresses, and telephone numbers of Design Consultant, Contractor, Subcontractors, and major equipment Suppliers
 2. Part II – O & M instructions arranged by system. For each category, identify names, addresses, and telephone numbers of Subcontractors and Suppliers and include the following:
 - a. Significant design criteria
 - b. List of equipment
 - c. Parts list for each component
 - d. Operating instructions
 - e. Maintenance instructions for equipment and systems
 - f. Maintenance instructions for special finishes, including recommended cleaning methods and materials and special precautions identifying detrimental agents.
 3. Part III. Project documents and certificates including:
 - a. Shop Drawings and relevant data
 - b. Air and water balance reports
 - c. Certificates
 - d. Photocopies of warranties
- F. Submit two (2) copies of O & M Manuals and parts manuals, for review, within one month (1 Mo) prior to placing the equipment or facility in service
- G. Submit one (1) copy of completed volumes in final form ten days (10 D) prior to final inspection. One (1) copy with the Project Manager comments will be returned after final inspection. Revise content of documents based on the Project Manager's comments prior to final submittal
- H. Revise and resubmit three (3) final volumes within ten days (10 D) after final inspection

1.5 EQUIPMENT O & M DATA

A Furnish O & M Manuals, prepared by manufacturers for all equipment. Manuals must contain, as a minimum, the following:

1. Equipment functions, normal operating characteristics, and limiting conditions.
2. Assembly, installation, alignment, adjustment, and checking instructions.
3. Operating instructions for start-up, normal operation, regulation and control, normal shutdown, and emergency shutdown.
4. Detailed drawings showing the location of each maintainable part and lubrication point with detailed instructions on disassembly and reassembly of the equipment.
5. Troubleshooting guide.
6. Spare parts list, predicted life of parts subject to wear, lists of spare parts recommended to be on hand for both initial start-up and for normal operating inventory, and local or nearest source of spare parts availability.
7. Outline, cross-section, and assembly drawings with engineering data and wiring diagrams.
8. Test data and performance curves.

B. Furnish parts manuals for all equipment, prepared by the equipment manufacturer, which contain as a minimum, the following.

1. Detailed drawings giving the location of each maintainable part.
2. Spare parts list with predicted life of parts subject to wear, lists of spare parts recommended on hand for both initial start-up and for normal operating inventory and local or nearest source of spare parts availability.

PART II: PRODUCTS – NOT USED

PART III: EXECUTION – NOT USED

END OF SECTION

01780-3

SECTION 01785

PROJECT RECORD DOCUMENTS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Maintenance and submittal of record documents and Samples.

1.2 REFERENCES

- A. CFTS – City of Friendswood Technical Specifications
 - 1. Section 00500 – General Conditions

1.3 MAINTENANCE OF DOCUMENTS AND SAMPLES

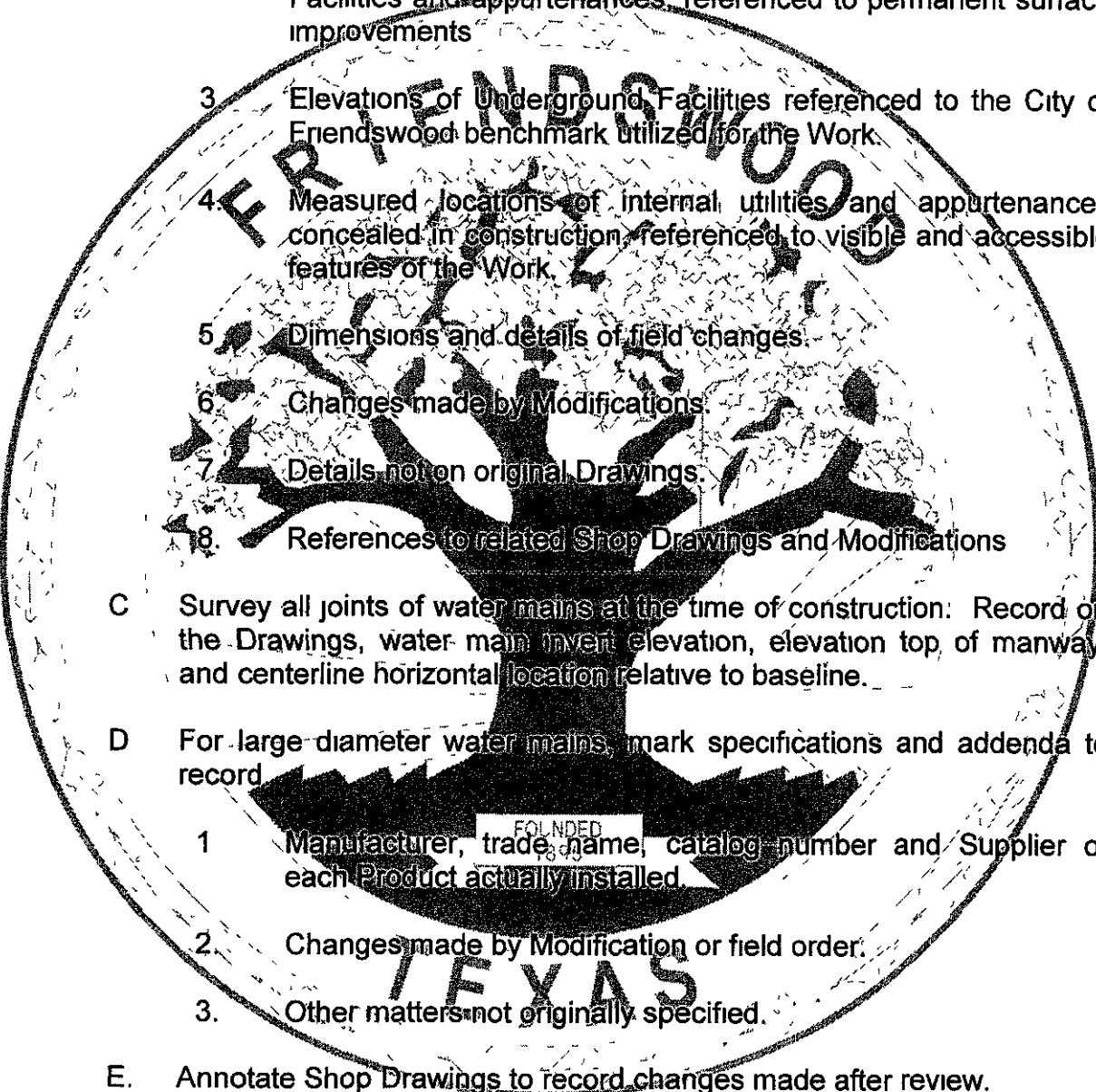
- A. Maintain one (1) record copy of documents at the site in accordance with Section 00500 – General Conditions.
- B. Store record documents and Samples in field office, if a field office is required by the Contract, or in a secure location. Provide files, racks, and secure storage for record documents and Samples.
- C. Label each document "PROJECT RECORD" in neat, large, printed letters.
- D. Maintain record documents in a clean, dry, and legible condition. Do not use record documents for construction purposes. Do not use permit drawings to record Modifications to the Work.
- E. Keep record documents and Samples available for inspection by the Project Manager.
- F. Bring record documents to progress review meetings for viewing by the Project Manager and, if applicable, the Design Consultant.

1.4 RECORDING

- A. Record information legibly with red ink pen on a set of blue-line opaque drawings, concurrently with construction progress. Maintain an instrument on site at all times for measuring elevations accurately. Do not conceal work until required information is recorded.
- B. The Contract Drawings and Shop Drawings. Mark each item to record

01785-1

completed Modifications, or when minor deviations exist, the actual construction including:

- 
1. Measured depths of elements of foundation in relation to finish first (1st) floor datum
 2. Measured horizontal locations and elevations of Underground Facilities and appurtenances, referenced to permanent surface improvements
 3. Elevations of Underground Facilities referenced to the City of Friendswood benchmark utilized for the Work.
 4. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 5. Dimensions and details of field changes.
 6. Changes made by Modifications.
 7. Details not on original Drawings.
 8. References to related Shop Drawings and Modifications
- C. Survey all joints of water mains at the time of construction: Record on the Drawings, water main invert elevation, elevation top of manway, and centerline horizontal location relative to baseline.
- D. For large diameter water mains, mark specifications and addenda to record
1. Manufacturer, trade name, catalog number and Supplier of each Product actually installed.
 2. Changes made by Modification or field order.
 3. Other matters not originally specified.
- E. Annotate Shop Drawings to record changes made after review.

1.5 SUBMITTALS

- A. At closeout of the Contract, deliver the Project Record Documents to the Project Manager

PART II PRODUCTS – NOT USED.

01785-2

PART III: EXECUTION – NOT USED.

END OF SECTION



SECTION 01800

TEMPORARY UTILITY IDENTIFICATION MARKINGS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Markings that identify utilities during construction
- B Markings that identify water, sanitary sewer, and storm manholes, valves, meters and cleanouts.

1.2 MEASUREMENT AND PAYMENT

- A. Unit Prices

- 1. No separate payment shall be made for marking utilities during and after new construction or repair under this Section

1.3 REFERENCES

- A. APWA – American Public Works Association.

- 1. APWA – Recommended Marking Guidelines for Underground Utilities

- B. CFSD – City of Friendswood Standard Details

1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures
- B. Submit manufacturer's product data concerning following materials for approval on type of marking paint being used.

PART II: PRODUCTS

2.1 PAINT FOR UTILITY IDENTIFICATION FOR EXCAVATIONS

- A Krylon Industrial Quik-Mark Solvent Based Inverted Marking Paint complying with APWA Recommendations or approved equal

2.2. Markings for identification of newly installed utilities

- A Krylon Industrial Quik-Mark Solvent-Based Inverted Marking Paint complying with APWA Recommendations or approved equal. The following colors shall be used for potable water and sanitary sewer:

1 Potable Water Krylon Industrial Quik-Mark Solvent-Based Inverted Marking Paint SO3903 or equivalent approved by the City's Project Manager.

2 Sanitary Sewer Krylon Industrial Quik-Mark Solvent-Based Inverted Marking Paint SO3904 or equivalent approved by the City's Project Manager.

- B Storm Sewer Manhole markings shall use Krylon Industrial Quik-Mark Solvent-Based Paint or equivalent approved by the City's Project Manager.

PART III: EXECUTION

3.1 PREPARATION

- A Accurately locate and install approved markers to conform to classes and colors indicated in this Section.
- B Clean and repair surfaces to receive markings. Remove loose material, dust and contaminants such as oil, curing membrane or polished aggregates.

3.2 INSTALLATION

- A Utility markings for excavation purposes shall be single line and have symbols approved by the APWA.
- B See City of Friendswood Standard Marking Details for examples of new utility markings.
- C Saw-cut curb or edge of pavement so that the saw-cut length matches the length as specified below. Saw-cut shall be a minimum of four inches (4 in) in length by one-quarter inch (1/4 in) in width by one-eighth inch (1/8 in) in depth.
- D Markings for newly installed utilities shall comply with the following:

1. Water Valves shall be marked by a nine inch (9 in) long by six inch (6 in) wide blue marker, using Krylon SO3903 marking

paint and shall be perpendicular to the centerline of the road

- 2 Water Meters shall be marked by a nine inch (9 In) long by three inch (3 In) wide blue marker, using Krylon SO3903 marking paint and shall be perpendicular to the centerline of the road

3. Sanitary Sewer Manholes shall be marked by a nine inch (9 In) long by six inch (6 In) wide green marker, using Krylon SO3904 marking paint and shall be perpendicular to the centerline of the road

- 4 Sanitary Sewer Clean-outs shall be marked by a nine inch (9 In) long by three inch (3 In) wide green marker, using Krylon SO3904 marking paint and shall be perpendicular to the centerline of the road

5. Storm Sewer Manholes shall be marked by a nine inch (9 In) long by three inch (3 In) wide black marker, using Krylon SO3550 marking paint and shall be parallel to the centerline of the road

3 4 WARRANTY

- A Warrant material and labor for period of twelve months (12 Mos) from date of installation of markings.

END OF SECTION

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SECTION 02000

EROSION CONTROL SYSTEMS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Requirements for construction and maintenance of erosion and sedimentation systems control and their components.
- B Requirements for location and extent of the components of erosion and sedimentation systems.

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices

- 1 No payment will be made for erosion control systems under this Section. Include cost in applicable erosion control measures.
- 2 Refer to Section 01270 - Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum)

- 1 If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price

1.3 REFERENCES

- A CFTS - City of Friendswood Technical Specifications
 - 1 Section 01270 - Measurement and Payment
- B CFCO - City of Friendswood Code of Ordinances
- C EPA - Environmental Protection Agency
- D TCEQ - Texas Commission on Environmental Quality

PART II PRODUCTS - NOT USED

PART III EXECUTION

3.1 GENERAL

- A No clearing and grubbing or rough cutting, other than as specifically directed by the Project Manager to allow soil testing and surveying, shall be permitted until erosion and sedimentation control systems are in place.
- B All equipment and vehicles used on the construction site shall be prohibited by the Contractor from maneuvering on areas outside of dedicated rights-of-way, easements or areas of construction.
- C Damages caused by construction traffic to erosion and sedimentation control systems shall be repaired immediately.
- D Conduct all construction operation under this Contract in conformance with the erosion control practices described in this Technical Specification.

3.2 EROSION AND SEDIMENTATION CONTROL SYSTEMS REQUIRED FOR CONSTRUCTION OF WATER, SEWER AND DRAINAGE IMPROVEMENTS

A Storm Sewers

- 1. Inlet protection barriers shall be constructed prior to commencing work, using either a non-woven geotextile filter fabric silt fence or a straw bale silt fence.
- 2. Inlet protection barriers shall be constructed prior to commencing work immediately around each completed or partially completed storm manhole or inlet.
- 3. Contractor shall not leave any storm manhole or inlet unprotected overnight.

B. Sanitary Sewers

- 1 Under no circumstances shall unfiltered runoff enter the existing sanitary sewer system during construction.
- 2 Water and sediment removed from any parts of a partially constructed or unaccepted sanitary sewer system shall not be discharged directly into the storm sewer system, unprotected swales or unprotected ditches.

- 3 Water and sediment shall be discharged into the storm sewer system upstream of inlet protection barriers.

C Water Distribution System

1. Water used to blow off the system shall be directed to nearby inlets upstream of inlet protection barriers
 2. Water used to blow off the system shall not be directed to existing unprotected swales or unprotected ditches.
- D** Place silt fences on downstream side of construction site when shown on the Drawings or when directed by the Project Manager
- E** Compact top layer of any stockpiled excavated material that is to be left on site overnight
- F** Trash pumps shall not discharge directly to any unprotected swale, unprotected ditch or unprotected low lying area
- G** Trash pumps shall discharge upstream of inlet protection barriers or silt fences
- H** The Contractor and the Project Manager shall inspect the erosion and sedimentation control system after each rain, daily during periods of prolonged rainfall and at a minimum of once a week regardless of weather
- I** When damage to sediment control system is discovered, the Contractor shall immediately repair and/or replace damaged components of the system
- J** The Contractor shall remove sediment deposits when the sediment has accumulated to one-half (1/2) the height of any area along any silt fence
- K** Cast and spread sediment deposits within the limits of the construction site as directed by the Project Manager

3.3 EROSION AND SEDIMENTATION CONTROL SYSTEMS REQUIRED FOR CONSTRUCTION OF PAVING IMPROVEMENTS

- A** Inlet protection barriers shall either be constructed by the paving contractor, or if inlet protection barriers are already in place, the paving contractor shall accept them for maintenance prior to commencing any

other construction activities

- B Place silt fences on downstream side of construction site when shown on the Drawings or when directed by the Project Manager.
- C Compact top layer of any stockpiled excavated material that is to be left on site overnight
- D Trash pumps shall not discharge directly to any unprotected swale, unprotected ditch or unprotected low-lying area
- E Trash pumps shall discharge upstream of inlet protection barriers or silt fences.
- F Before concrete pavement is placed and curb is completed, all previously constructed inlet protection barriers may be adjusted by the paving contractor
- G Storm manholes and inlets shall not be left overnight without inlet protection barriers before placement of concrete pavement and curb is completed
- H After placement and curing of the concrete curb, silt fences shall be placed behind the curb.
- I Remove inlet protection barriers only after construction of the silt fences behind the curb or other protective measures are in place.
- J The Contractor shall not leave any portion of any street unprotected overnight.
- K The Contractor and the Project Manager shall inspect the erosion and sedimentation control system after each rain, daily during prolonged periods of rainfall and at a minimum of once a week regardless of the weather
- L When damage to sediment control system is discovered, the Contractor shall immediately repair and/or replace damaged components of the system
- M The Contractor shall remove sediment deposits when the sediment has accumulated to one-half (1/2) the height of any area along any silt fence
- N Cast and spread sediment deposits within the limits of the construction site as directed by the Project Manager

3.4 MAINTENANCE

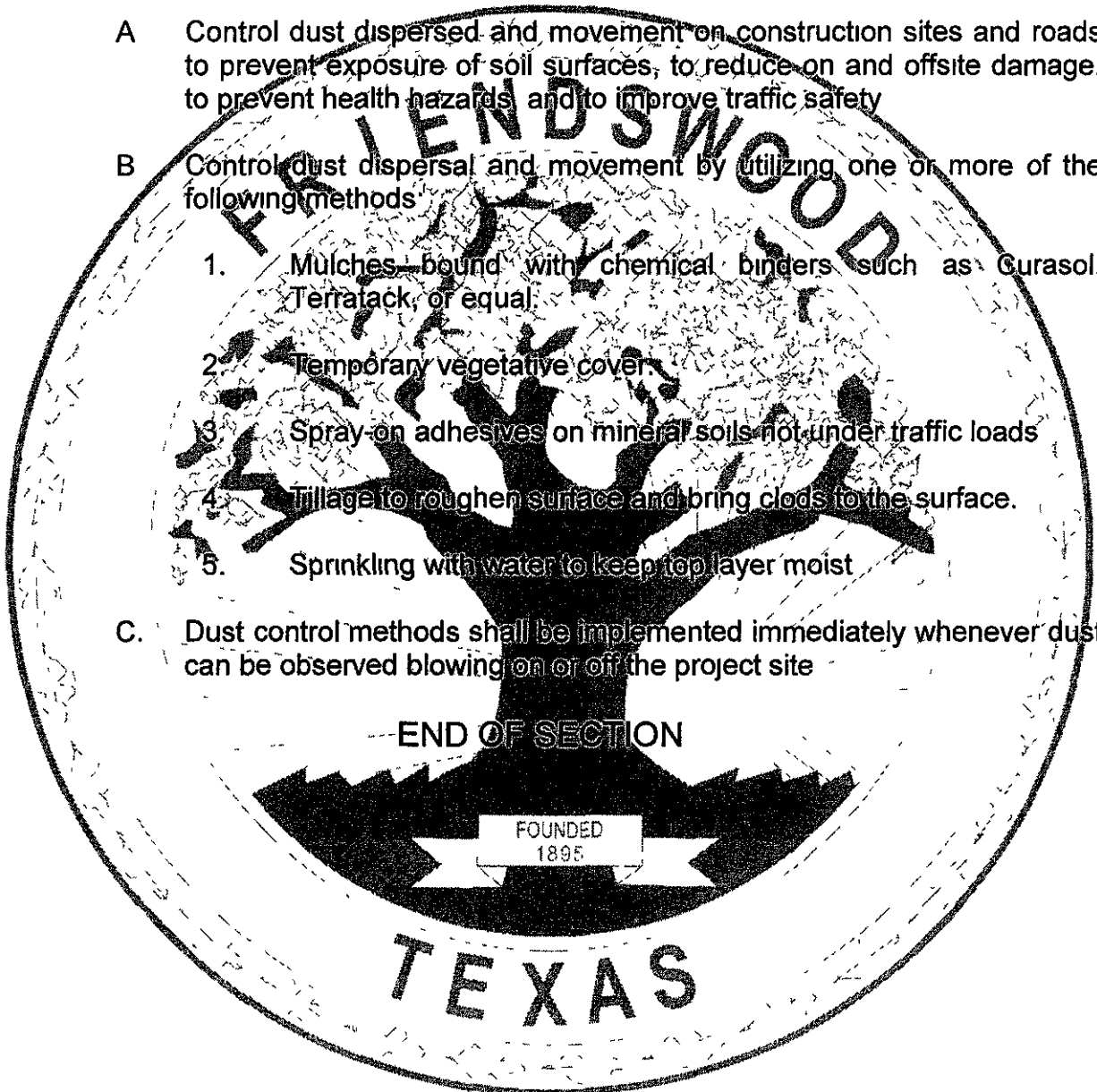
A The following applies only when a Storm Water Pollution Prevention Program (SWPPP) has been implemented by the Contractor

- 1** Unless otherwise directed by the Project Manager, the Contractor shall be responsible for maintenance of the erosion and sedimentation control system until final acceptance of the or until the paving contractor receives notice to proceed
- 2** The Project Manager shall walk through the project with the paving contractor and the Design Professional, and together the three (3) parties will observe each component of the erosion and sedimentation control system and agree that either:
 - a** Each component in the system is acceptable and the paving contractor shall assume maintenance responsibilities or
 - b** List repairs the Contractor must make to each component that is not acceptable before the paving contractor shall assume maintenance responsibilities.
- 3.** When the paving contractor receives notice to proceed, the Contractor is then responsible for maintaining the existing erosion and sedimentation control system provided that either:
 - a** There are no repairs required by the Contractor or
 - b** Repairs to the system have been completed by the Contractor
- 4** The paving contractor shall dispose of any component of the system constructed by the Contractor that is not reused in a manner consistent with the purpose of the system
- 5** The paving contractor shall continue maintenance of the erosion and sedimentation control system after final acceptance by the City if so directed by the Project Manager and if included in the bid proposal and unit price description
- 6.** The paving contractor shall dispose of the system the Contractor has constructed, when so directed, by the Project Manager.

- B When a PPP has not been implemented by the WSD (Water, Sewer and/or Drainage) Contractor, the paving Contractor shall be responsible for constructing and maintaining all components required by the PPP

3.5 DUST CONTROL

- A Control dust dispersed and movement on construction sites and roads to prevent exposure of soil surfaces, to reduce on and offsite damage, to prevent health hazards, and to improve traffic safety
- B Control dust dispersal and movement by utilizing one or more of the following methods
1. Mulches bound with chemical binders such as Gurasol, Terratack, or equal.
 2. Temporary vegetative cover.
 3. Spray-on adhesives on mineral soils not under traffic loads
 4. Tillage to roughen surface and bring clods to the surface.
 5. Sprinkling with water to keep top layer moist
- C. Dust control methods shall be implemented immediately whenever dust can be observed blowing on or off the project site



END OF SECTION

SECTION 02005

FILTER FABRIC SILT FENCE

PART I. GENERAL

1.1 GENERAL REQUIREMENTS

- A Requirements for the installation, maintenance and removal of erosion and sedimentation control filter fabric silt fence utilized during construction and prior to the final development of the site.

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices.

- 1 Payment for filter fabric silt fence shall be on a unit price basis. Unit price includes cost of filter fabric fence, staking poles, ditching, and reinforcing. Maintenance during construction and removal of fence are incidental to installation and there shall be no separate pay for these items.
- 2 Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum):

1. If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price.

1.3 REFERENCES

A. ASTM – American Society for Testing and Materials.

- 1 ASTM D4491 – Standard Test Methods for Water Permeability of Geotextiles by Permeivity.

B CFTS – City of Friendswood Technical Specifications

- 1 Section 01270 – Measurement and Payment
- 2 Section 01330 – Submittal Procedures.
3. Section 02000 – Erosion Control Systems.

1 4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures

PART II: PRODUCTS

2 1 MATERIALS

- A Material shall be Non-woven Geotextile Filter Fabric

1. Composed of either:
 - a. Polypropylene material;
 - b. Polyethylene material;
 - c. Ethylene material;
 - d. or Polyamide material
2. Grab strength shall be at least one hundred pounds (100 Lbs) in any principal direction.
3. Mullen burst strength shall exceed two hundred pounds per square inch (200 psi).
4. Equivalent opening size shall be between fifty gallons per minute per square foot (50 gpm/Sf) and one hundred forty gallons per minute per square foot (140 gpm/Sf).
5. Water flow rate shall be ten gallons per minute per square foot (10 gpm/Sf) at fifty millimeters (50 mm) constant head as determined by multiplying permeivity (in sec^{-1}) as determined by ASTM D4491 by a conversion factor of seventy-four (74).
6. Ultraviolet ray inhibitors and stabilizers shall provide a maximum of six months (6 Mos) of expected usable life at a temperature range of zero degrees Fahrenheit (0°F) to one hundred twenty degrees Fahrenheit (120°F).
7. Ultraviolet radiation stability shall be ninety percent (90%)
8. Fabric reinforced with support netting shall be reinforced with an industrial polypropylene netting with three-quarter inch (3/4 In) spacing and shall also include a heavy duty nylon top support cord.

B Fence Supports

1. Two inch by two inch (2 In x 2 In) wooden posts three feet (3 Ft) long or equivalent, and field constructed or;
2. Factory pre-assembled with support netting and heavy duty nylon top support cord.

PART III: EXECUTION

3.1 GENERAL

- A. Except as otherwise directed or otherwise shown on the Drawings, provide non-woven geotextile filter fabric silt fences to prevent erosion and control sedimentation.
- B. Maintain silt fences until the project is accepted by the City.
- C. At the City's option, silt fences may remain in place after acceptance.
- D. Maintenance and removal of silt fences shall comply with all requirements as specified in Section 02000 - Erosion Control Systems.

3.2 CONSTRUCTION METHODS

- A. Silt fences shall not exceed twenty-four inches (24 In) in height.
- B. Wood posts shall be driven at least twelve inches (12 In) into the ground.
- C. Maximum spacing of wood posts shall be three feet (3 Ft) for field constructed fences and eight feet (8 Ft) for factory pre-assembled silt fences.
- D. Filter fabric shall be stapled using at least one-half inch (1/2 In) staples to the upslope side of the posts.
- E. Anchor the filter fabric by spreading at least eight inches (8 In) of the fabric in a four inch by four inch (4 In x 4 In) trench or a four inch (4 In) deep V-trench on the upslope side of the fence.

END OF SECTION

SECTION 02010

STRAW BALE FENCE

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Requirements for the installation of erosion and sedimentation control straw bale fences utilized during construction and prior to the final development of the site.

1.2 MEASUREMENT AND PAYMENT

A Unit Prices

1. Payment for straw bale fence shall be on a unit price basis. Unit price includes cost of straw bale fence, staking poles, ditching, and reinforcing. Maintenance during construction and removal of fence are incidental to installation and there shall be no separate pay for these items.
2. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum)

1. If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price.

1.3 REFERENCES

A CFTS – City of Friendswood Technical Specifications.

1. Section 01270 – Measurement and Payment.
2. Section 01330 – Submittal Procedures.
3. Section 02000 – Erosion Control Systems.

1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.

PART II. PRODUCTS

2.1 STRAW BALES

- A Use straw bales bound by either wire, nylon or poly-propylene rope tied across the straw bales
- B Do not use straw bales bound with jute, cotton rope or twine

2.2 ANCHOR STAKES

- A Bales shall be anchored using three-eighths inch (3/8 in) diameter reinforcing steel bars.
- B Length of bar shall be thickness of straw bale plus two feet (2 Ft).

PART III: EXECUTION

3.1 GENERAL

- A Except if otherwise directed or otherwise shown on the Drawings provide straw bale fences to prevent erosion and control sedimentation.
- B Maintain straw bale fences until the project is accepted by the City.
- C At City's option, straw bale fences may remain in place after acceptance.
- D Maintenance and removal of straw bale fences shall comply with all requirements as specified in Section 02000 – Erosion Control Systems

3.2 CONSTRUCTION METHODS

- A Excavate four inches (4 in) of material to embed each straw bale in the soil.
- B Anchor bales securely by driving anchor stakes through the bales and at least two feet (2 Ft) into the ground below the bale.
- C The first (1st) stake in each bale shall be angled toward the previously laid bale to force bales together.
- D Fill any gaps between bales with straw to prevent unfiltered runoff from escaping between the bales.
- E Wedge straw in gaps carefully so as not to separate bales

END OF SECTION



SECTION 02015

GEOTEXTILE

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Geotextile, also called filter fabric, in applications including pipe embedment wrap, around exterior of tunnel liner, around foundations of pipeline structures and slope stabilization.

1.2 MEASUREMENT AND PAYMENT

A Unit Prices:

1. No separate payment shall be made for work performed under this Section. Include cost of work in unit prices for work requiring geotextile.
2. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum):

1. If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price.

1.3 REFERENCES

A. AASHTO – American Association of State Highway and Transportation Officials.

1. AASHTO M288 – Standard Specification for Geotextile Specification for Highway Applications.

B ASTM – American Society for Testing and Materials.

1. ASTM D4491 – Standard Test Methods for Water Permeability of Geotextiles by Permittivity
2. ASTM D4533 – Standard Test Method for Trapezoid Tearing Strength of Geotextiles
3. ASTM D4632 – Standard Test Method for Grab Breaking Load and Elongation of Geotextiles (Grab Method).

- 4 ASTM D4751 – Standard Test Method for Determining Apparent Opening Size of Geotextiles
- 5 ASTM D4833 – Standard Test Method for Index Puncture Resistance of Geotextiles, Geomembranes and Related Products

C CFTS – City of Friendswood Technical Specifications.

- 1 Section 01270 – Measurement and Payment.
- 2 Section 01330 – Submittal Procedures
- 3 Section 02000 – Erosion Control Systems.
- 4 Section 02125 – Excavation and Backfill for Utilities

1.4 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures.
- B. Submit standard manufacturer's catalog sheets and other pertinent information, for approval, prior to installation.
- C Submit installation methods, as part of work plan for tunneling or for excavation and backfill for utilities. Obtain approval from the Project Manager for filter fabric material and proposed installation method prior to use of filter fabric

PART II PRODUCTS

2.1 GEOTEXTILE

- A. Provide geotextile (filter fabric) designed for use in geotechnical applications. Filter fabric shall provide permeable layer or media while retaining soil matrix.
- B. Use fabric which meets physical requirements for Class A subsurface drainage installation conditions as defined in AASHTO M288 and as specified in Paragraph 2.2, Properties

2.2 PROPERTIES

- A Material Nonwoven, nonbiodegradable, fabric consisting of continuous chain polymer filaments or yarns, at least eighty-five percent (85%) by weight polyolefins, polyesters or polyamide, formed into dimensionally

stable network

- B Chemical Resistance. Inert to commonly encountered chemicals and hydrocarbons over pH range of three (3) to twelve (12)
- C Physical Resistance. Resistant to mildew and rot, ultraviolet light exposure, insects and rodents
- D Minimum Test Values shall be as specified in TABLE 4.1 – MINIMUM TEST VALUES FOR GEOTEXTILE MATERIAL in this section

PART III: EXECUTION

3.1 GENERAL

- A Maintain geotextiles until the project is accepted by the City
- B. At City's option, geotextiles may remain in place after acceptance
- C Maintenance and removal of geotextiles shall comply with all requirements as specified in Section 02000 – Erosion Control Systems

3.2 LINE WORK

- A. Conform use of geotextile to backfill for utilities to Section 02125 – Excavation and Backfill for Utilities.

PART IV: TABLES

4.1 MINIMUM TEST VALUES FOR GEOTEXTILE MATERIAL

PROPERTY	VALUE (MIN.)	TEST METHOD
Grab Strength	180 lbs.	ASTM D4632
Trapezoidal Tear Strength	50 lbs.	ASTM D4583
Puncture Strength	80 lbs.	ASTM D4833
Mullen Burst Strength	290 psi	ASTM D3786
Apparent Opening Size ⁽¹⁾	0.25 mm	ASTM D4751
Permittivity (sec ⁻¹)	0.2	ASTM D4491

⁽¹⁾ Maximum average roll value.

END OF SECTION

SECTION 02020

STABILIZED CONSTRUCTION ACCESS, ROADS, PARKING AND WASH AREAS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Section includes requirements for construction, maintenance and removal of stabilized construction access.
- B Section includes requirements for construction, maintenance and removal of temporary stabilized roads, parking lots and wash areas

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices

1. Payment for stabilized construction access shall be on a unit price basis for each installation.
2. Payment for temporary roads and driveways shall be on a unit basis per installation.
3. No separate measurement and payment shall be made for temporary parking lots or wash areas.
4. No separate measurement and payment shall be made for maintenance or removal or operations listed in this Section
5. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump-Sum)

1. If Contract is Stipulated Price Contract, payment for Work in this Section shall be included in Total Stipulated Price

1.3 REFERENCES

- A CFTS – City of Friendswood Technical Specifications.
 1. Section 01270 – Measurement and Payment.

- 2 Section 01330 - Submittal Procedures
- 3 Section 01580 – Waste Material Disposal.
- 4 Section 02000 – Erosion Control Systems
5. Section 02015 – Geotextile

B EPA – Environmental Protection Agency

C. TCEQ – Texas Commission on Environmental Quality

1.4 SUBMITTALS

A Conform to requirements of Section 01330 - Submittal Procedures

PART II: PRODUCTS

A Permeable separator shall be a geotextile conforming to Section 02015 – Geotextile

B. Construction access foundation shall be flexible base, bituminous concrete, cement stabilized base course, portland cement concrete or other material as approved by the Project Manager

C When wood construction entrance/exit is specified in the Drawings they shall conform to the following:

1 Cross timbers surface shall be treated six inch by six inch (6 In x 6 In) railroad ties a minimum of twenty foot (20 Ft) in length.

2. Bracing timber planks shall be two inch by ten inch (2 In x 10 In) treated, #2 grade minimum.

PART III: EXECUTION

3.1 GENERAL

A Provide stabilized access, washing areas and/or parking areas at locations shown on the Drawings or as approved by the Project Manager

B Stabilized construction access:

- 1 Shall be placed to allow positive drainage from the access to an approved sediment control system.

2. Shall be a minimum of fifty feet (50 Ft) in length.
3. Shall have six to one (6:1) approaches on front and back slopes of access containing permeable separator and three inch (3 In) to five inch (5 In) rock with a minimum thickness of eight inches (8 In).

C Roads and parking areas shall be graded to provide sufficient drainage away from stabilized areas.

1. Furnish and place geotextile fabric as a permeable separator to prevent mixing of granular fill with underlying soil.
2. Place one inch (1 In) to five inch (5 In) granular fill to dimensions and depths shown on the Drawings or as directed by the Project Manager. The minimum thickness shall be eight inches (8 In).
3. Use sandbags, gravel, boards or similar methods to prevent sediment from entering public rights-of-way, storm drains, ditches and watercourses.

D. Wash areas shall be graded to provide sufficient drainage away from stabilized areas.

1. Furnish and place geotextile fabric as a permeable separator to prevent mixing of granular fill with underlying soil.
2. Place one inch (1 In) to five inch (5 In) granular fill to dimensions and depths shown on the Drawings or as directed by the Project Manager. The minimum thickness shall be eight inches (8 In).
3. Use sandbags, gravel, boards or similar methods to prevent sediment from entering public rights-of-way, storm drains, ditches and watercourses.

3.2 MAINTENANCE

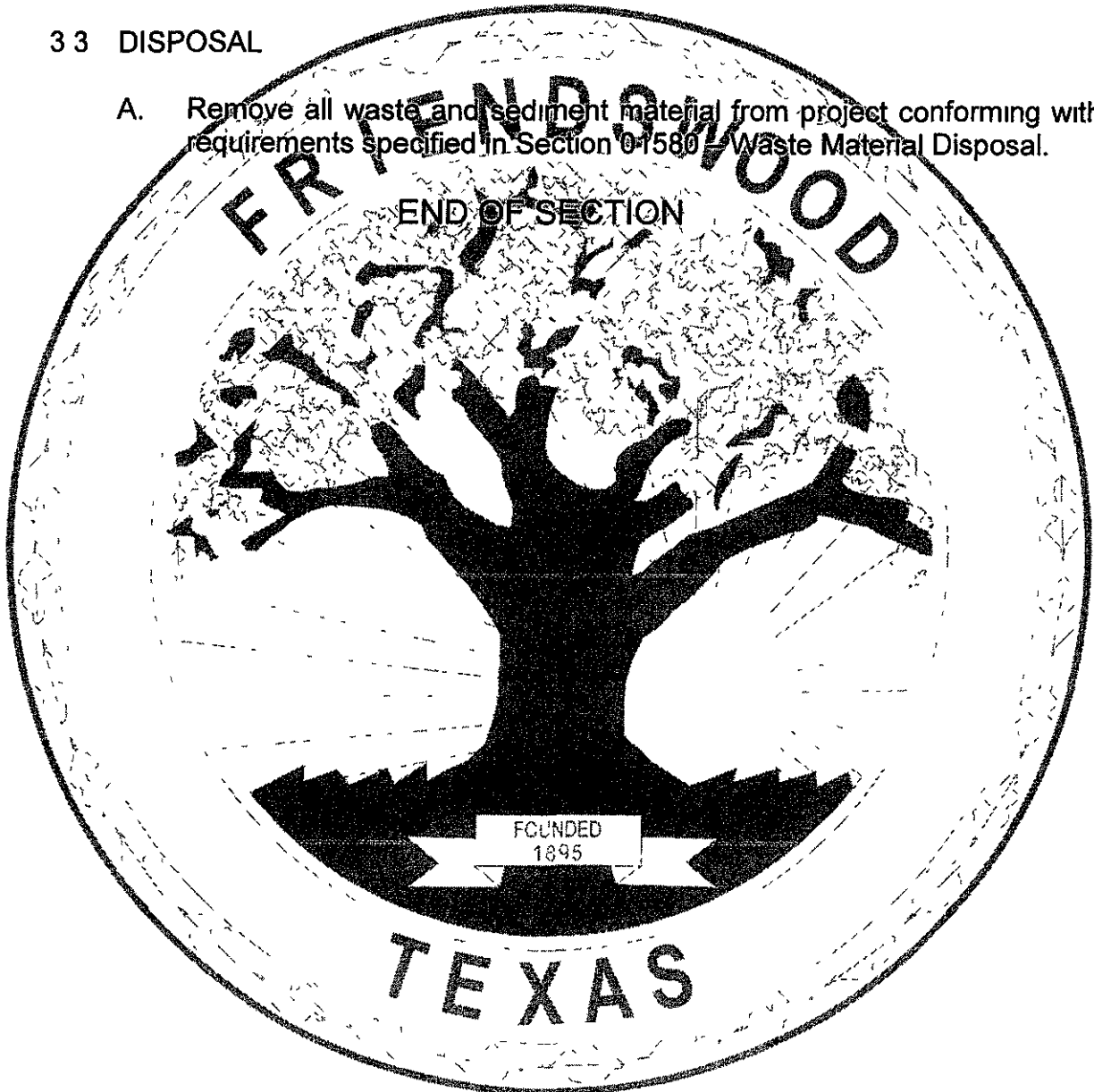
- A Inspect and maintain stabilized areas daily. Provide periodic top dressing with additional granular fill as necessary.
- B Repair or replace components of stabilized access areas that become defective from intended use.
- C Maintain stabilized access areas as specified in Section 02000 –

Erosion Control Systems until acceptance of the Project or as directed by the Project Manager.

- D Remove stabilized access as specified in Section 02000 – Erosion Control Systems promptly when directed by the Project Manager. Restore areas where stabilized construction access was removed to final project grade in preparation of turf establishment by others

3.3 DISPOSAL

- A. Remove all waste and sediment material from project conforming with requirements specified in Section 01580 – Waste Material Disposal.



SECTION 02025

SANDBAG BARRIERS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Requirements for the installation of erosion and sedimentation control installation of erosion and sedimentation control of sandbag barriers, which shall be utilized prior to the final development of the site and during construction.

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices

1. Payment for sandbag barrier shall include and be full compensation for all labor, equipment, materials, supervision, and all incidental expenses for construction of these items, complete in place, including but not limited to, protection of trees, maintenance requirements, repair and replacement of damaged sections, removal of sediment deposits, and removal of erosion and sedimentation control systems at the end of construction.

2. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum)

1. If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price.

1.3 REFERENCES

A. CFTS – City of Friendswood Technical Specifications.

1. Section 01270 – Measurement and Payment
2. Section 01330 – Submittal Procedures
3. Section 01560 – Tree and Plant Protection
4. Section 02000 – Erosion Controls Systems

1.4 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures.

PART II: PRODUCTS

2.1 SANDBAG MATERIAL

- A Provide woven sandbag material made of polypropylene, polyethylene, or polyamide material. Sandbag material shall have a minimum unit weight of four ounces per square yard (4 Oz/Sy), minimum grab strength of one hundred pounds per square inch (100 psi) in any principal direction (ASTM D4632), Mullen burst strength exceeding three hundred pounds per square inch (300 psi) (ASTM D3786), and ultraviolet stability exceeding seventy percent (70%).

2.2 SANDBAG

- A. Provide sandbag with length approximately eighteen inches (18 In) to twenty-four inches (24 In), width twelve inches (12 In) to eighteen (18 In) inches, and thickness six inches (6 In) to eight inches (8 In). Weight fifty pounds (50 Lbs) to one hundred twenty-five pounds (125 Lbs).

PART III: EXECUTION

3.1 GENERAL

- A. Except as otherwise directed or otherwise shown on the Drawings, provide non-woven geotextile filter fabric sandbags to prevent erosion and control sedimentation.
- B. Maintain sandbags until the project is accepted by the City.
- C. At The City's option, sandbags may remain in place after acceptance.
- D. Maintenance and removal of sandbags shall comply with all requirements as specified in Section 02000 – Erosion Control Systems.

3.2 CONSTRUCTION METHODS

- A Provide sandbag barriers at locations specified on the Drawings. Sandbag barrier systems shall be installed in such a manner that surface runoff will percolate through the system in sheet flow fashion and allow sediment to be retained and accumulated.

- B Inspect sandbag barrier systems after each rainfall, daily during periods of prolonged rainfall and at a minimum once a week regardless of weather. Repair or replace damaged section immediately to restore the requirements of this Item. Remove sediment deposits when silt reaches one-third of the height of the sandbag in depth

END OF SECTION



SECTION 02030

ROCK FILTER DAMS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Section includes requirements for furnishing, installing, maintaining and removing rock filter dams.

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices:

1. Measurement and payment is as noted on the Unit Price Schedule.
2. Refer to Section 01270 – Measurement and Payment for unit price procedures.
3. Geotextile, excavation and disposal, granular fill and reinforcing wire shall not be measured separately.
4. No separate payment shall be made for removal of accumulated sediment. Maintenance and removal and subsequent reinstallation, if required, of the rock filter dam shall be incidental to the cost of the rock filter dam.

B. Stipulated Price (Lump Sum):

1. If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price.

1.3 REFERENCES

A. ASTM – American Society for Testing and Materials

1. ASTM A975 – Double Twisted Hexagonal Mesh Gabions and Revet Mattresses (Metallic-Coated Steel Wire or Metallic-Coated Steel Wire with Polyvinyl Chloride (PVC) Coating)

B. CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment

- 2 Section 01330 – Submittal Procedures
- 3 Section 01580 – Waste Material Disposal
- 4 Section 02000 – Erosion Control Systems.
- 5 Section 02015 – Geotextile.
- 6. Section 02900 – Turf Establishment

1 4 SUBMITTALS

- A Refer to Section 01330 – Submittal Procedures.
- B. Submit catalog data and mill certificate for geotextile and catalog data for wire to be used.

PART II: PRODUCTS

2 1 GRANULAR FILL

- A Provide granular fill consisting of concrete or stone. Provide granular fill that is dense, durable and hard material.
- B. Provide granular fill, as shown on the Drawings or as directed by the Project Manager, to the following dimensions:
 - 1. Provide three inch (3 in) to five inch (5 in) granular fill with no material diameter less than three inches (3 in) and no material diameter greater than five inches (5 in).

2 2 WIRE COATING

- A Style 1 – zinc coated prior to being double twisted into mesh in accordance with ASTM A975.

2.3 WIRE MESH FOR REINFORCEMENT

- A Provide twenty (20) gauge galvanized double-twisted hexagonal wire mesh and tie wires or as shown on the Construction Plans.

2 4 CONNECTION WIRES AND STIFFENERS

- A. Provide spiral binders, lacing wire and stiffeners made of wire having the same coating material and same wire size as the wire mesh for reinforcement.

2.5 GEOTEXTILE SEPARATION FABRIC

- A. Provide a geotextile of woven or spunbond nonwoven fibers consisting of long-chain synthetic polymers composed of at least ninety-five percent (95%) by weight of polyolefins. Provide geotextile fabric equal as specified in TABLE 4.1 – MINIMUM AVERAGE ROLL VALUE and TABLE 4.2 – MAXIMUM AVERAGE ROLL VALUE in this section.
- B. Refer to Section 02015 – Geotextile for storage and handling precautions and requirements.

PART III: EXECUTION

3.1 GENERAL

- A. Except as otherwise directed or otherwise shown on the Drawings, provide non-woven geotextile filter fabric rock filter dams to prevent erosion and control sedimentation.
- B. Maintain rock filter dams until the project is accepted by the City.
- C. At the City's option, rock filter dams may remain in place after acceptance.
- D. Maintenance and removal of rock filter dams shall comply with all requirements as specified in Section 02000 – Erosion Control Systems.

3.2 SEDIMENT DISPOSAL

- A. Refer to Section 01580 – Waste Material Disposal.

PART IV: TABLES

4.1 MINIMUM AVERAGE ROLL VALUE

MINIMUM AVERAGE ROLL VALUE	
Elongation	≥ 50 percent
Grab Strength	≥ 200 pounds
Puncture Strength	≥ 75 pounds
UV Stability (retained strength)	≥ 50 percent ¹

¹After five hundred hours (500 Hrs) of exposure

4.2 MAXIMUM AVERAGE ROLL VALUE

MAXIMUM AVERAGE ROLL VALUE	
Apparent Opening Size	0.212 to 0.6 mm ¹

¹#70 to #30 US sieve



SECTION 02100

CLEARING AND GRUBBING

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Removing surface debris and rubbish.
- B. Clearing site of plant life and grass.
- C. Removing trees and shrubs.
- D. Removing root system of trees and shrubs.
- E. Fence removal.

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices:

- 1. Payment for clearing and grubbing shall be on a per acre basis.
- 2. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum):

- 1. If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price.

1.3 REGULATORY REQUIREMENTS

- A. Conform to applicable codes for disposal of debris.
- B. Coordinate clearing work with utility companies.

1.4 REFERENCES

- A. CFTS – City of Friendswood Technical Specifications
 - 1. Section 01270 – Measurement and Payment

2. Section 01580 – Waste Material Disposal

PART II: PRODUCTS – Not Used

PART III: EXECUTION

3.1 PREPARATION

- A Verify that existing plant life and features designated to remain are identified and tagged.

3.2 PROTECTION

- A Protect following from damage or displacement:

1. Living trees located three feet (3 Ft) or more outside of intersection of side slopes and original ground line.
2. Plants and landscape features designated to remain
3. Utilities designated to remain
4. Bench marks, monuments and existing structures designated to remain

3.3 CLEARING

- A. Remove stumps, main root ball and root system to:

1. Depth of twenty-four inches (24 In) below finished subgrade elevation in area bounded by lines two feet (2 Ft) behind back of curbs.
2. Depth of twenty-four inches (24 In) below finished surface of required cross section for other areas.

- B. Clear undergrowth and deadwood without disturbing subsoil.

- C. Remove vegetation from top soil scheduled for reuse.

3.4 REMOVAL

- A Remove debris, rubbish and extracted plant material from site in accordance with requirements of Section 01580 – Waste Material Disposal.

- B Remove on-site fences. Materials generated from removal of fences shall become property of the Contractor. Properly dispose of materials in accordance with applicable local, state and federal laws, or as otherwise directed by the Project Manager

END OF SECTION

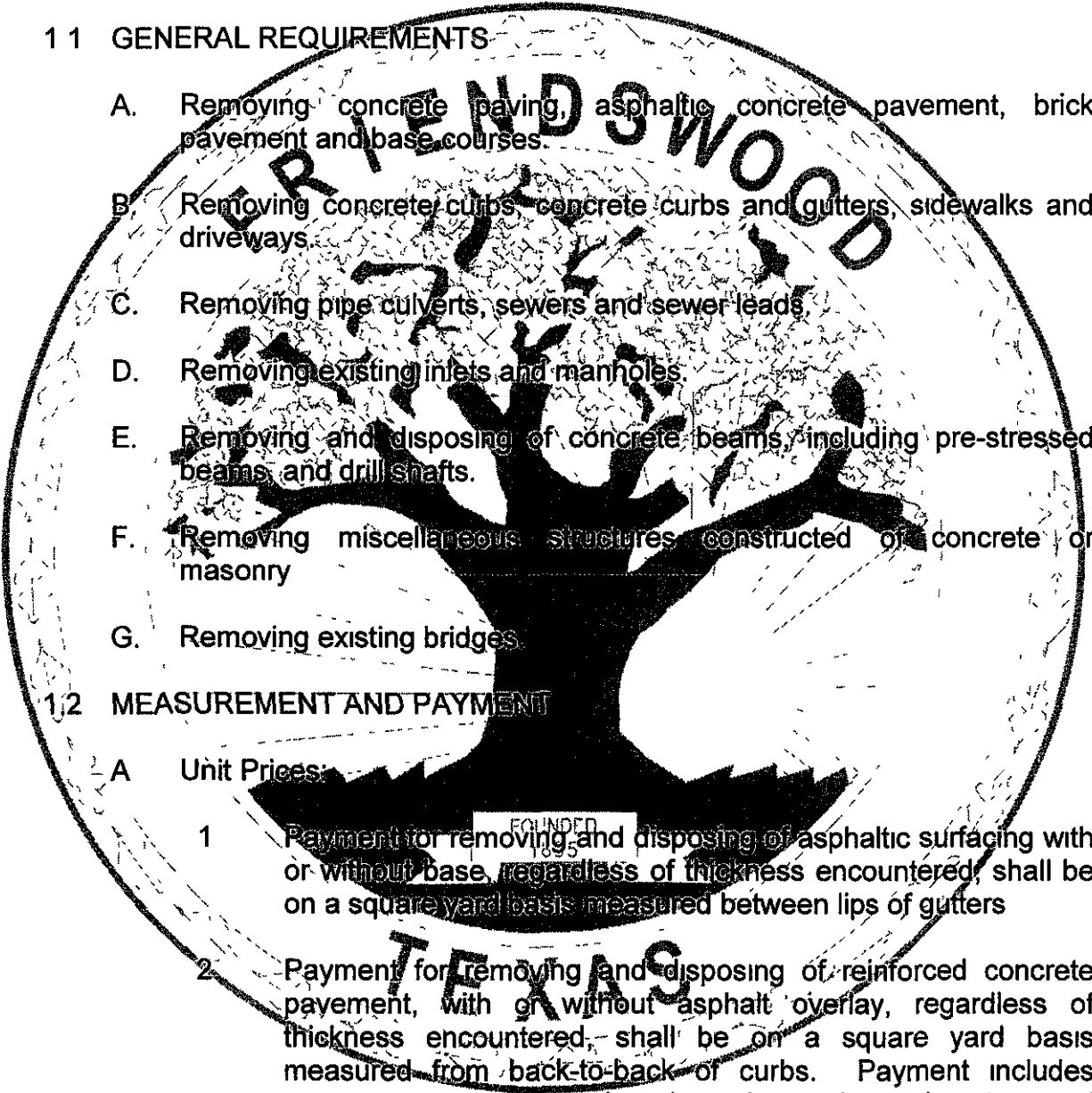


SECTION 02105

REMOVING EXISTING PAVEMENTS AND STRUCTURES

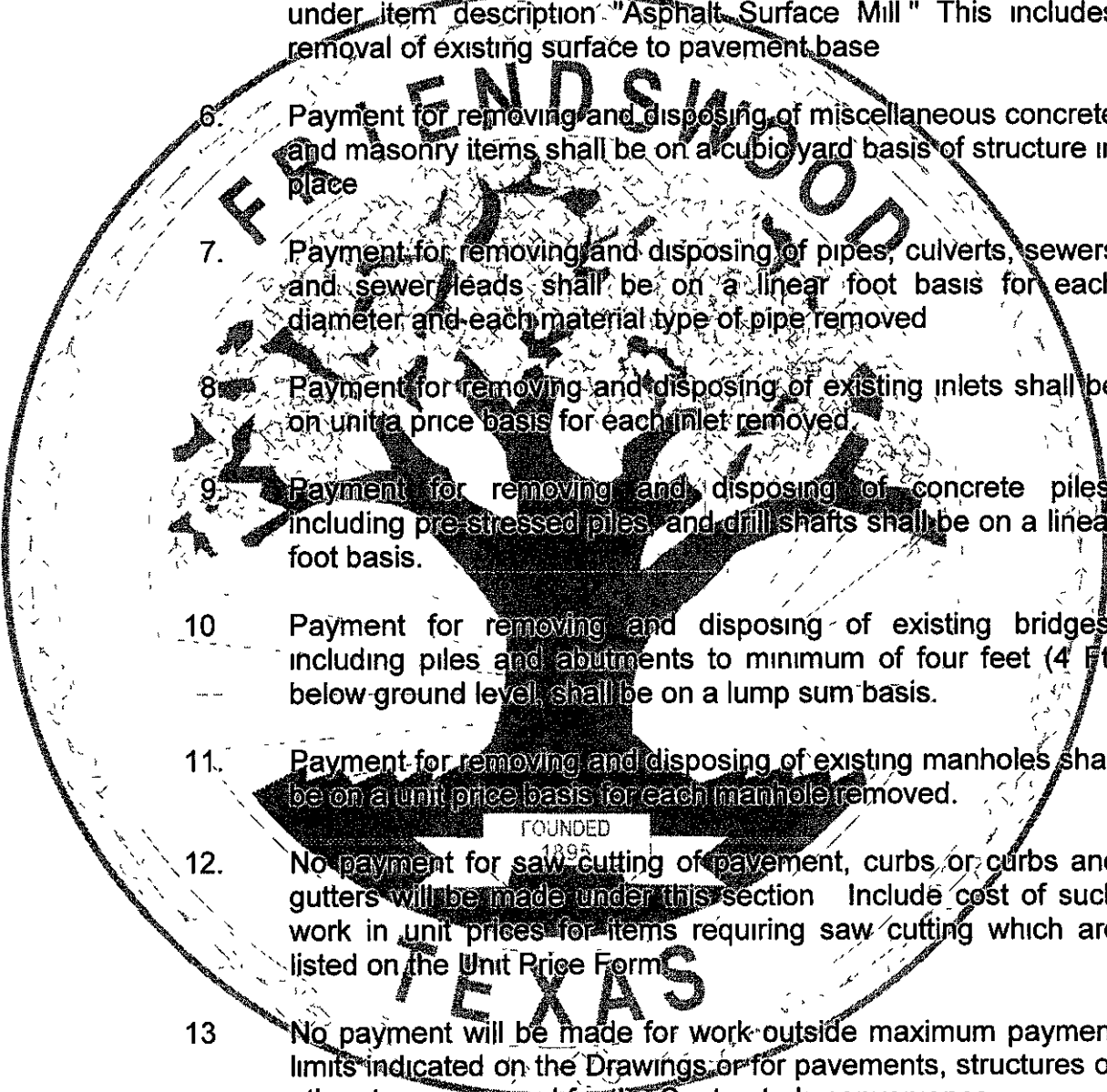
PART I GENERAL

1.1 GENERAL REQUIREMENTS

- 
- A. Removing concrete paving, asphaltic concrete pavement, brick pavement and base courses.
 - B. Removing concrete curbs, concrete curbs and gutters, sidewalks and driveways.
 - C. Removing pipe culverts, sewers and sewer leads.
 - D. Removing existing inlets and manholes.
 - E. Removing and disposing of concrete beams, including pre-stressed beams and drill shafts.
 - F. Removing miscellaneous structures constructed of concrete or masonry.
 - G. Removing existing bridges.

1.2 MEASUREMENT AND PAYMENT

- A. Unit Prices:
 - 1. Payment for removing and disposing of asphaltic surfacing with or without base, regardless of thickness encountered, shall be on a square yard basis measured between lips of gutters.
 - 2. Payment for removing and disposing of reinforced concrete pavement, with or without asphalt overlay, regardless of thickness encountered, shall be on a square yard basis measured from back-to-back of curbs. Payment includes concrete pavement, esplanade curbs, curbs and gutters and paving headers.
 - 3. Payment for removing and disposing of cement stabilized shell base course, with or without asphaltic surfacing, regardless of thickness encountered, shall be on a square yard basis.

- 
4. Payment for removing and disposing of concrete sidewalks and driveways, regardless of thickness encountered, shall be on a square yard basis.
 5. Payment for removing asphaltic surface course, regardless of thickness encountered, shall be on a square yard basis paid under item description "Asphalt Surface Mill" This includes removal of existing surface to pavement base
 6. Payment for removing and disposing of miscellaneous concrete and masonry items shall be on a cubic yard basis of structure in place
 7. Payment for removing and disposing of pipes, culverts, sewers and sewer leads shall be on a linear foot basis for each diameter and each material type of pipe removed
 8. Payment for removing and disposing of existing inlets shall be on unit price basis for each inlet removed
 9. Payment for removing and disposing of concrete piles, including pre-stressed piles, and drill shafts shall be on a linear foot basis.
 10. Payment for removing and disposing of existing bridges, including piles and abutments to minimum of four feet (4 Ft) below ground level, shall be on a lump sum basis.
 11. Payment for removing and disposing of existing manholes shall be on a unit price basis for each manhole removed.
 12. No payment for saw cutting of pavement, curbs or curbs and gutters will be made under this section. Include cost of such work in unit prices for items requiring saw cutting which are listed on the Unit Price Form.
 13. No payment will be made for work outside maximum payment limits indicated on the Drawings or for pavements, structures or other items removed for the Contractor's convenience
 - a. For utility installations Actual pavement replaced should match but not be greater than maximum pavement replacement limits shown on the Drawings. Limits of measurement will be as shown on Street Cut Pavement Replacement Rules

- 14 Refer to Section 01270 – Measurement and Payment for unit price procedures

B Stipulated Price (Lump Sum)

1. If Contract shall be Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price.

1.3 REGULATORY REQUIREMENTS

- A. Conform to applicable codes for disposal of debris.
B. Coordinate removal work with utility companies.

1.4 REFERENCES

- A. CTFS – City of Friendswood Technical Specifications.
1. Section 01270 – Measurement and Payment
2. Section 01580 – Waste Material Disposal
3. Section 02120 – Excavation and Backfill for Structures

PART II: PRODUCTS – Not Used

PART III: EXECUTION

3.1 PREPARATION

- A. Obtain advance approval from the Project Manager for dimensions and limits of pavement, structures and other items to be removed.
B. Identify known utilities below grade. Stake and flag locations

3.2 PROTECTION

- A. Protect the following from damage or displacement
1. Adjacent public and private property
2. Trees, plants and other landscape features designated to remain.

- 3 Utilities designated to remain
- 4 Pavement, structures and other items designated to remain.
- 5 Bench marks, monuments and other items designated to remain

3.3 REMOVALS

- A Remove pavements, structures and other items by methods that will not damage underground utilities. Do not use drop hammer near existing underground utilities
- B Minimize amount of earth loaded during removal operations.
- C Where existing pavement is to remain, make straight saw cuts in existing pavement to provide clean breaks prior to removal. Do not break concrete pavement or base with drop hammer unless concrete or base has been saw cut to minimum depth of two inches (2 in)
- D When street and driveway saw cut location is greater than one-half (1/2) of pavement lane width, remove pavement for full lane width or to nearest longitudinal joint as directed by the Project Manager.
- E Remove sidewalks and curbs to nearest existing dummy, expansion or construction joint.
- F Where existing end of pipe culvert or end of sewer is to remain, install eight inch (8 in) thick masonry plug in pipe end prior to backfill in accordance with requirements of Section 02120 – Excavation and Backfill for Structures.

3.4 BACKFILL

- A Backfill of areas excavated during removal operations shall be in accordance with requirements of Section 02120 – Excavation and Backfill for Structures.

3.5 DISPOSAL

- A Inlet frames, grates and plates, and manhole frames and covers may, as directed, remain City property. Disposal shall be in accordance with requirements of Section 01580 – Waste Material Disposal
- B Remove from site any debris resulting from work under this section in accordance with requirements of Section 01580 – Waste Material

Disposal

END OF SECTION



SECTION 02110

BORROW

PART I. GENERAL

1.1 GENERAL REQUIREMENTS

- A. Soil materials for embankment

1.2 MEASUREMENT AND PAYMENT

- A. Unit Prices

1. Payment for borrow shall be on a cubic yard basis calculated by theoretical quantities using average end area method based on the Drawings.
2. Refer to Section 01270 – Measurement and Payment for unit price procedures.

- B. Stipulated Price (Lump Sum)

1. If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price

1.3 REFERENCES

- A. ASTM – American Society for Testing and Materials

1. ASTM D2216 – Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil, Rock and Soil Aggregate Mixtures.
2. ASTM D4318 – Standard Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils.

- B. CFTS – City of Friendswood Technical Specifications.

1. Section 01270 – Measurement and Payment
2. Section 01330 – Submittal Procedures.
3. Section 01470 – Testing Laboratory Services.

- 4 Section 01475 – Quality Control Testing Procedures.
5. Section 01555 – Traffic Control and Regulation
6. Section 02115 – Embankment

1.4 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures
- B. Submit location and description of proposed borrow area for approval.
- C. Submit material samples for testing.

PART II PRODUCTS

2.1 SOIL MATERIAL

- A. Borrow material to be used for embankment shall be free of lumps greater than six inches (6 in), rocks larger than three inches (3 in), organic material, chemical waste or other contamination and debris. Take borrow material from sources approved by the Project Manager.
- B Material shall have a plasticity index not less than twelve (12), nor more than twenty (20) when tested in accordance with ASTM D4318. Maximum liquid limit shall be forty-five (45), unless approved by the Project Manager. Blending of cohesive and granular soils to achieve required plasticity index is not allowed.

PART III EXECUTION

3.1 PREPARATION

- A. Notify the Project Manager and testing laboratory five days (5 D) in advance of opening borrow source to permit obtaining samples for qualification testing. If material does not meet specification requirements, locate another source of borrow.
- B Clear approved source area of trees, stumps, brush, roots, vegetation organic matter and other unacceptable material before excavation.

3.2 TESTS

- A Test and analyze soil materials in accordance with ASTM D4318 and

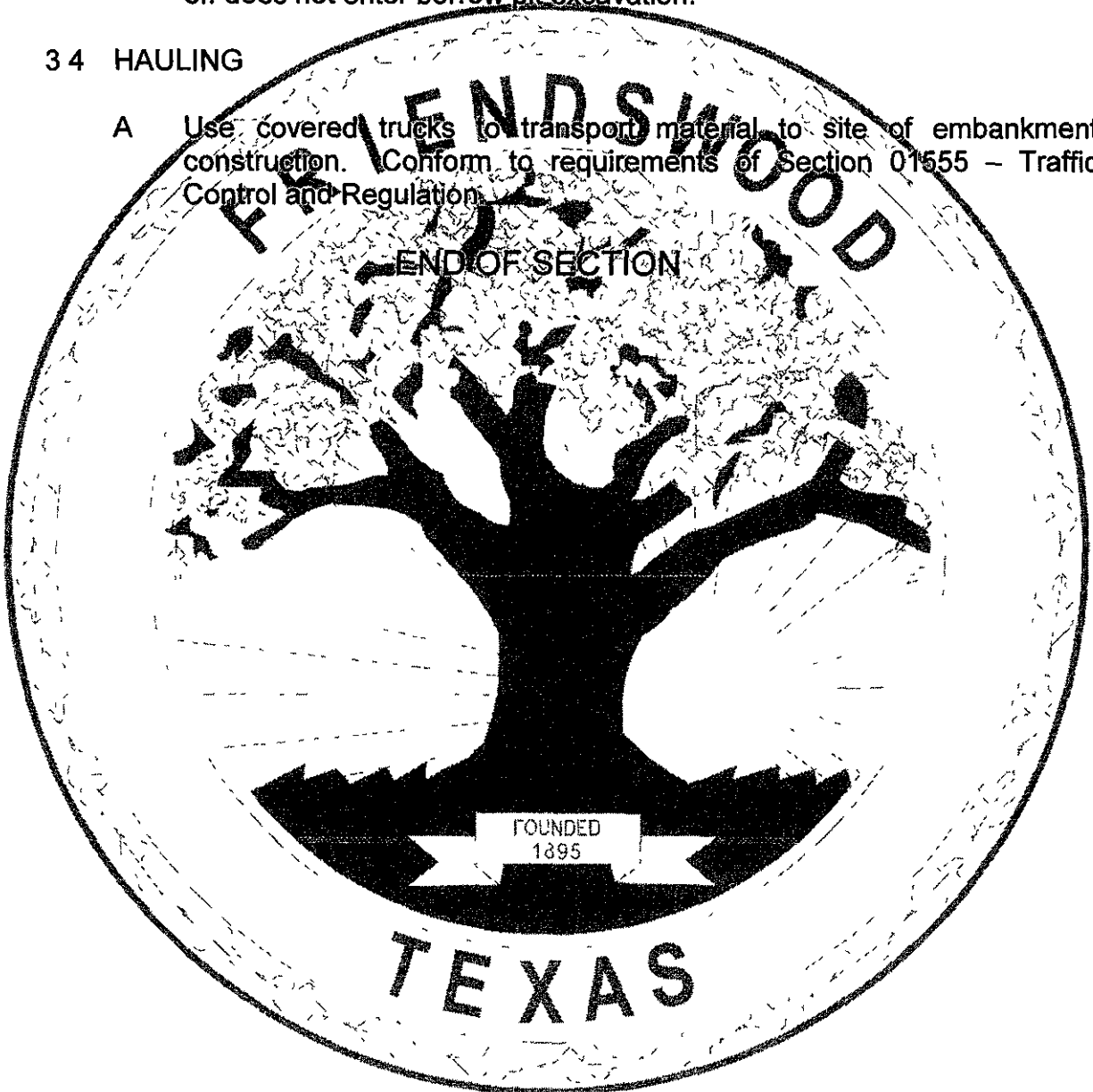
ASTM D2216 under provisions of Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures.

3.3 EXCAVATION

- A Provide adequate drainage of surface water so that surface water runoff does not enter borrow pit excavation.

3.4 HAULING

- A Use covered trucks to transport material to site of embankment construction. Conform to requirements of Section 01555 – Traffic Control and Regulation.



SECTION 02115

EMBANKMENT

PART I. GENERAL

1.1 GENERAL REQUIREMENTS

- A. Construction of embankments with qualified excess excavated material and borrow material.

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices

1. No separate payment will be made for borrow material and handling under this section. Include payment in unit price for excavation or borrow.
2. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum)

1. If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price.

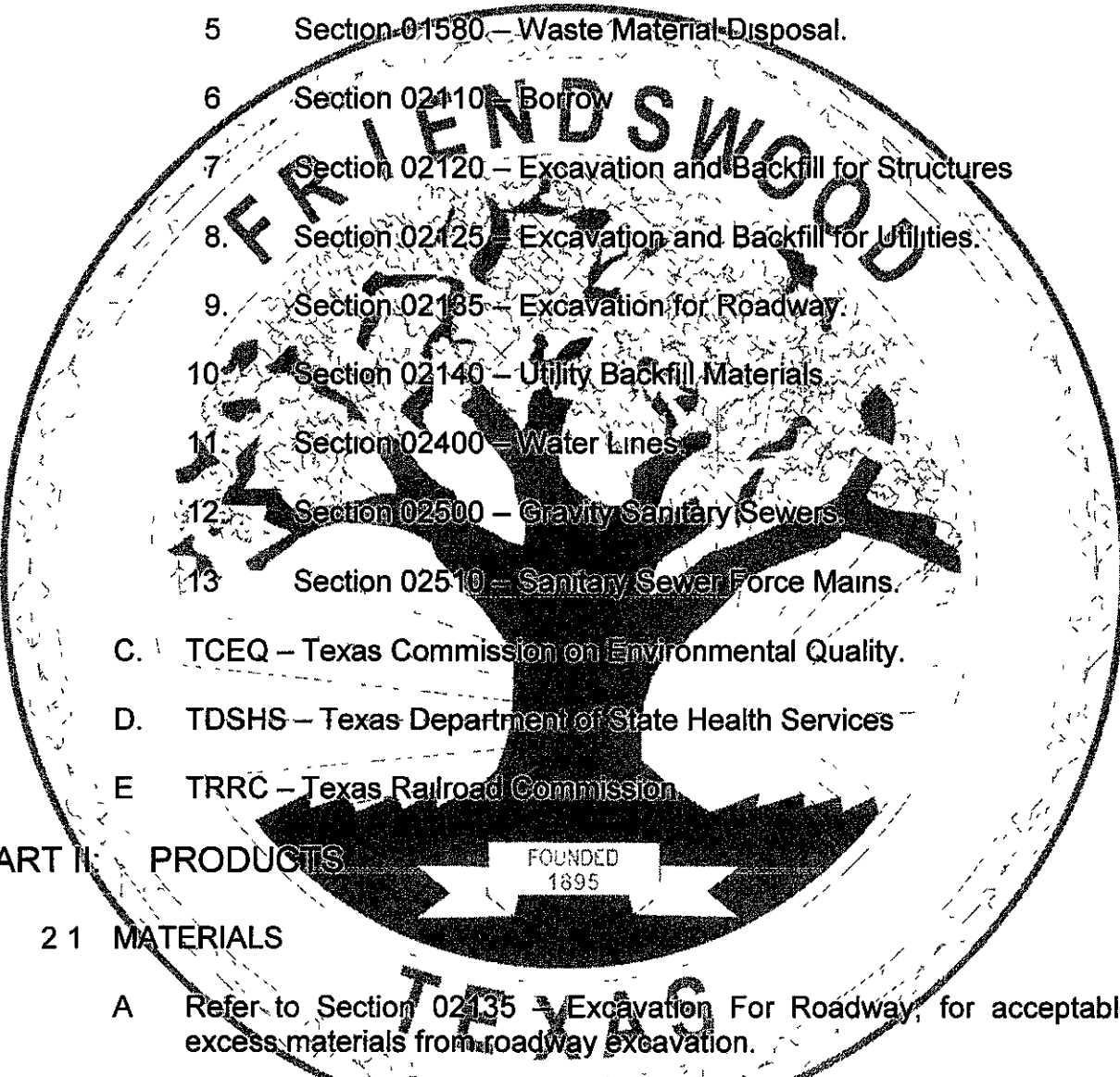
1.3 REFERENCES

A. ASTM – American Society for Testing and Materials.

1. ASTM D698 – Standard Test Methods for Laboratory Compaction Characteristics of Soils Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m²)).
2. ASTM D2922 – Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
3. ASTM D3017 – Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth)

B. CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment

- 
- 2 Section 01330 – Submittal Procedures
 - 3 Section 01470 – Testing Laboratory Services
 - 4 Section 01475 – Quality Control Testing Procedures
 - 5 Section 01580 – Waste Material Disposal.
 - 6 Section 02110 – Borrow
 - 7 Section 02120 – Excavation and Backfill for Structures
 8. Section 02125 – Excavation and Backfill for Utilities
 9. Section 02135 – Excavation for Roadway
 10. Section 02140 – Utility Backfill Materials
 11. Section 02400 – Water Lines
 12. Section 02500 – Gravity Sanitary Sewers
 - 13 Section 02510 – Sanitary Sewer Force Mains.
- C. TCEQ – Texas Commission on Environmental Quality.
- D. TDSHS – Texas Department of State Health Services
- E. TRRC – Texas Railroad Commission

PART II: PRODUCTS

2.1 MATERIALS

- A Refer to Section 02135 – Excavation For Roadway, for acceptable excess materials from roadway excavation.
- B Refer to Section 02125 – Excavation and Backfill For Utilities, for acceptable excess materials from utility excavation and trenching
- C Refer to Section 02110 – Borrow, for acceptable borrow materials

PART III: EXECUTION

3.1 EXAMINATION

- A. Verify that borrow and excess excavated materials to be reused are approved.
- B. Verify that removal and clearing and grubbing operations have been completed.

3.2 PREPARATION

- A. Backfill test pits, stump holes, small swales and other surface irregularities. Backfill and compact in designated lift depths to requirements for embankment compaction.
- B. Record location and plug and fill inactive water and oil wells. Conform to Texas Department of State Health Services (TDSHS), Texas Commission on Environmental Quality (TCEQ) and Texas Railroad Commission (TRRC) requirements. Notify the Project Manager prior to plugging wells.
- C. Excavate and dispose of unsuitable soil and other unsuitable materials which will not consolidate. Backfill and compact to requirements for embankment. Unsuitable soil is defined in Section 02120 – Excavation and Backfill for Structures and Section 02140 – Utility Backfill Materials.
- D. Backfill new utilities below future grade. Conform to requirements of Sections 02125 – Excavation and Backfill For Utilities, 02400 – Water Lines, 02500 – Gravity Sanitary Sewers and 02510 – Sanitary Sewer Force Mains.

3.3 PROTECTION

- A. Protect trees, shrubs, lawns, existing structures and other features outside of embankment limits.
- B. Protect utilities above and below grade, which are to remain.
- C. Conform to protection requirements of Section 02135 – Excavation For Roadway.

3.4 PLACING EMBANKMENT

- A. Do not conduct placement operations during inclement weather or

when existing ground or fill materials exceed three percent (3%) above optimum moisture content. The Contractor may manipulate wet material to facilitate drying by disking or windrowing.

- B. Do not place embankment fill until density and moisture content of previously placed material complies with specified requirements
- C. Scarify areas to be filled to minimum depth of four inches (4 In) to bond existing and new materials. Mix with first (1st) fill layer
- D. Spread fill material evenly, from dumped piles or windrows, into horizontal layers approximately parallel to finished grade. Place proper thickness to meet specified compacted thickness. Break clods and lumps and mix materials by blading, harrowing, disking or other approved method. Extend each layer across full width of fill.
- E. Each layer shall be homogeneous and contain uniform moisture content before compaction. Mix dissimilar abutting materials to prevent abrupt changes in composition of fill.
- F. Layers shall not exceed the following compacted thickness:
 - 1. Areas indicated to be under future paving or shoulders, to be constructed within six months (6 Mos): six inches (6 In) when compacted with pneumatic rollers or eight inches (8 In) when compacted with other rollers
 - 2. Other areas: Twelve inches (12 In).
- G. For steep slopes, cut benches into slope and scarify before placing fill. Place increasingly wider horizontal layers of specified depth to level of each bench.
- H. Build embankment layers on back slopes, adjacent to existing roadbeds, to level of old roadbed. Scarify top of old roadbed to minimum depth of four inches (4 In) and recompact with next fill layer.
- I. Construct to lines and grades shown on the Drawings
- J. Remove unsuitable material and excess soil not being used for embankment from site in accordance with requirements of Section 01580 – Waste Material Disposal
- K. Maintain moisture content of embankment materials to attain required density.

- L. Compact to following minimum densities at moisture content of optimum to three percent (3%) above optimum as determined by ASTM D698, unless otherwise indicated on the Drawings.

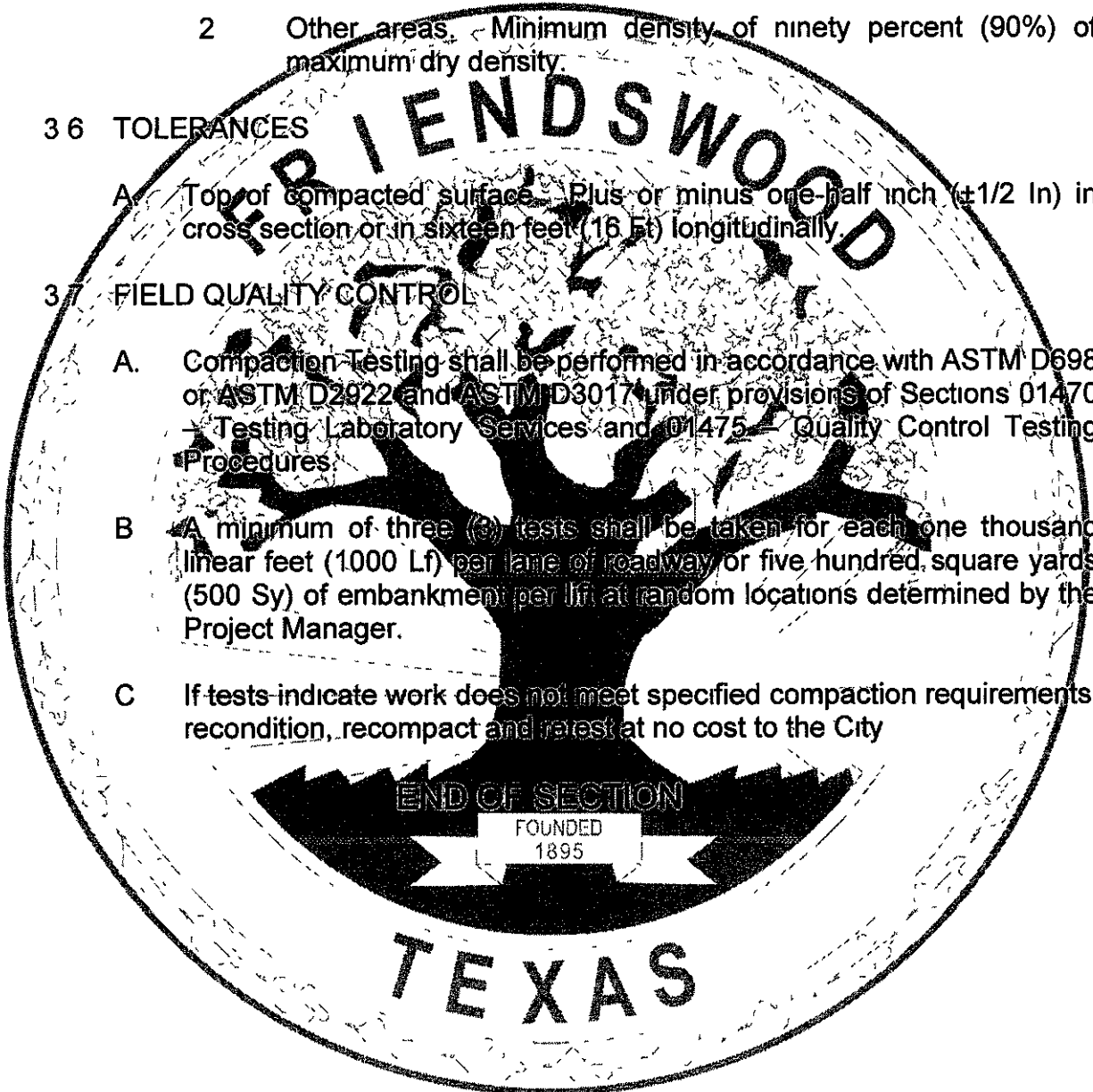
- 1 Areas under future paving and shoulders: Minimum density of ninety-five percent (95%) of maximum dry density
- 2 Other areas: Minimum density of ninety percent (90%) of maximum dry density.

3.6 TOLERANCES

- A. Top of compacted surface: Plus or minus one-half inch ($\pm 1/2$ In) in cross section or in sixteen feet (16 Ft) longitudinally.

3.7 FIELD QUALITY CONTROL

- A. Compaction Testing shall be performed in accordance with ASTM D698 or ASTM D2922 and ASTM D3017 under provisions of Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures.
- B. A minimum of three (3) tests shall be taken for each one thousand linear feet (1000 Lf) per lane of roadway or five hundred square yards (500 Sy) of embankment per lift at random locations determined by the Project Manager.
- C. If tests indicate work does not meet specified compaction requirements, recondition, recompact and retest at no cost to the City.



SECTION 02120

EXCAVATION AND BACKFILL FOR STRUCTURES

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Excavation, backfilling and compaction of backfill for structures

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices

1. No separate payment will be made for structural excavation and backfill under this Section. Include payment in unit price or lump sum for construction of structures.
2. Refer to Section 01270 – Measurement and Payment for unit price procedures.

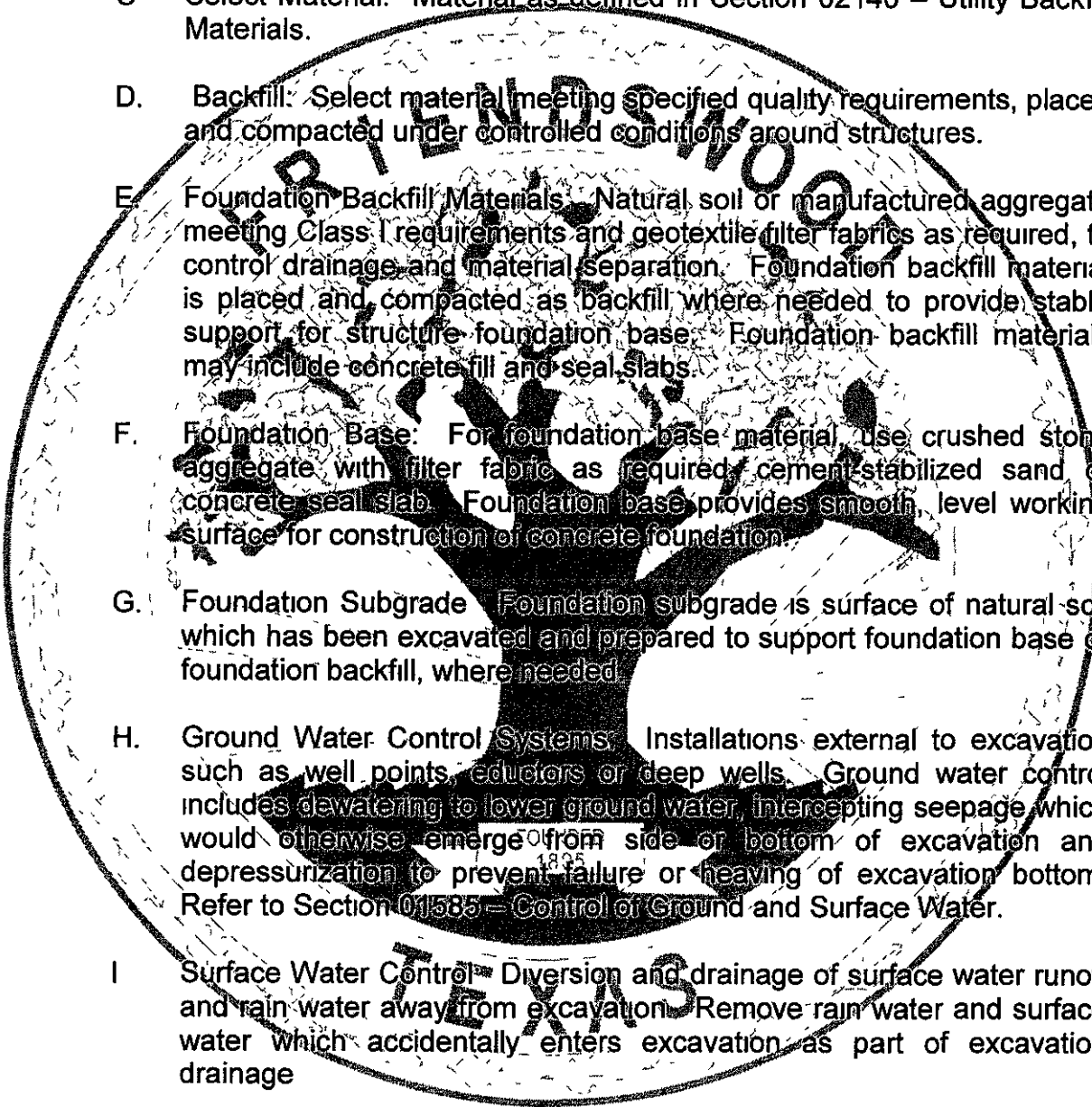
B. Stipulated Price (Lump Sum)

1. If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price

1.3 DEFINITIONS

A. Unsuitable Material

1. Unsuitable soil materials are the following:
 - a. Materials that are classified as ML, CL-ML, MH, PT, OH and OL according to ASTM D2487.
 - b. Materials that cannot be compacted to required density due to gradation, plasticity or moisture content.
 - c. Materials that contain large clods, aggregates, stones greater than four inches (4 in) in any dimension, debris, vegetation, waste or any other deleterious materials.
 - d. Materials that are contaminated with hydrocarbons or other chemical contaminants

- 
- B. Suitable Material. Suitable soil materials are those meeting specification requirements. Unsuitable soils meeting specification requirements for suitable soils after treatment with lime or cement shall be considered suitable, unless otherwise indicated.
- C. Select Material. Material as defined in Section 02140 – Utility Backfill Materials.
- D. Backfill: Select material meeting specified quality requirements, placed and compacted under controlled conditions around structures.
- E. Foundation Backfill Materials: Natural soil or manufactured aggregate meeting Class I requirements and geotextile filter fabrics as required, to control drainage and material separation. Foundation backfill material is placed and compacted as backfill where needed to provide stable support for structure foundation base. Foundation backfill materials may include concrete fill and seal slabs.
- F. Foundation Base: For foundation base material, use crushed stone aggregate with filter fabric as required, cement-stabilized sand or concrete seal slab. Foundation base provides smooth, level working surface for construction of concrete foundation.
- G. Foundation Subgrade: Foundation subgrade is surface of natural soil which has been excavated and prepared to support foundation base or foundation backfill, where needed.
- H. Ground Water Control Systems: Installations external to excavation such as well points, ejectors or deep wells. Ground water control includes dewatering to lower ground water, intercepting seepage which would otherwise emerge from side or bottom of excavation and depressurization to prevent failure or heaving of excavation bottom. Refer to Section 01585 – Control of Ground and Surface Water.
- I. Surface Water Control: Diversion and drainage of surface water runoff and rain water away from excavation. Remove rain water and surface water which accidentally enters excavation as part of excavation drainage.
- J. Excavation Drainage. Removal of surface and seepage water in excavation by sump pumping and using French drains surrounding foundation to intercept water.
- K. Over-Excavation and Backfill: Excavation of subgrade soils with unsatisfactory bearing capacity or composed of otherwise unsuitable

materials below foundation as shown on the Drawings and backfilled with foundation backfill material

- L. Shoring System. Structure that supports sides of an excavation to maintain stable soil conditions and prevent cave-ins

1.4 REFERENCES

A. ASTM – American Society for Testing and Materials

1. ASTM D698 – Standard Test Methods for Laboratory Compaction of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600kN-m/m³)).
2. ASTM D1556 – Standard Test Method for Density of Soil in Place by Sand Cone Method
3. ASTM D2922 – Standard Test Methods for Density of Soil and Rock in Place by Nuclear Methods (Shallow Depth)
4. ASTM D3017 – Standard Test Method for Water Content of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depths).
5. ASTM D4318 – Standard Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils.

B. CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment.
2. Section 01430 – Submittal Procedures.
3. Section 01470 – Testing Laboratory Services
4. Section 01475 – Quality Control Testing Procedures
5. Section 01555 – Traffic Control and Regulation
6. Section 01560 – Tree and Plant Protection
7. Section 01580 – Waste Material Disposal
8. Section 01585 – Control of Ground and Surface Water
9. Section 01785 – Project Record Documents

- 10 Section 02015 – Geotextile
- 11. Section 02105 – Removing Existing Pavements and Structures
- 12. Section 02110 – Borrow
- 13 Section 02140 – Utility Backfill Materials
- 14 Section 02145 – Cement-Stabilized Sand.
- 15. Section 02280 – Trench Safety System.

C. TxDOT – Texas Department of Transportation.

- 1 TxDOT Tex-101-E – Preparing Soil and Flexible Base Materials for Testing
- 2 TxDOT Tex-110-E – Particle Size Analysis of Soils.

D. OSHA – Occupational Safety and Health Administration.

- 1. Federal Regulations, 29 CFR, Part 1926, Standards – Excavation, Occupational Safety and Health Administration (OSHA)

1.5 SUBMITTALS

A Conform to requirements of Section 01330 – Submittal Procedures

B Submit work plan for excavation and backfill for each structure with complete written description which identifies details of proposed method of construction and sequence of operations for construction relative to excavation and backfill activities. Use descriptions, with supporting illustrations, sufficiently detailed to demonstrate to the Project Manager that procedures meet requirements of the Technical Specifications and the Drawings.

C Submit excavation safety system plan:

- 1. Submit excavation safety system plan in accordance with applicable OSHA requirements for excavations.
- 2 Submit excavation safety system plan in accordance with requirements of Section 02280 – Trench Safety Systems, for excavations that fall under State and Federal trench safety

laws

- D. Submit ground and surface water control plan in accordance with requirements in this Section and Section 01585 – Control of Ground and Surface Water.
- E. Submit backfill material sources and product quality information in accordance with requirements of Section 02140 – Utility Backfill Materials.
- F. Submit project record documents under provisions of Section 01785 – Project Record Documents. Record location of utilities, as installed, referenced to survey benchmarks. Include location of utilities encountered or rerouted. Give horizontal dimensions, elevations, inverts and gradients.

1.6 TESTS

- A. Testing and analysis of backfill materials for soil classification and compaction during construction will be performed by an independent laboratory provided by the City in accordance with requirements of Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures and as specified in this Section.
- B. Perform embedment and backfill material source qualification testing in accordance with requirements of Section 02140 – Utility Backfill Materials.

PART II: PRODUCTS

2.1 EQUIPMENT

- A. Perform excavation with equipment suitable for achieving requirements of this Specification.
- B. Use equipment which will produce degree of compaction specified. Compact backfill within three feet (3 Ft) of walls with hand operated equipment. Do not use equipment weighing more than ten thousand pounds (10000) closer to walls than a horizontal distance equal to depth of fill at that time. Use hand operated power compaction equipment where use of heavier equipment is impractical or restricted due to weight limitations.

2.2 MATERIAL CLASSIFICATIONS

- A Use backfill materials conforming to classifications and product descriptions of Section 02140 – Utility Backfill Materials. Use classification or product description for backfill applications as shown on the Drawings and as specified.

PART III: EXECUTION

3.1 PREPARATION

- A Conduct an inspection to determine condition of existing structures and other permanent installations.
- B Set up necessary street detours and barricades in preparation for excavation if construction will affect traffic. Conform to requirements of Section 01555 – Traffic Control and Regulation. Maintain barricades and warning devices at all times for streets and intersections where work is in progress or where affected by the Work and such is considered hazardous to traffic movements.
- C Perform work in accordance with OSHA standards. Employ an excavation safety system as specified in Section 02280 – Trench Safety Systems.
- D Remove existing pavements and structures, including sidewalks and driveways, in accordance with requirements of Section 02105 – Removing Existing Pavements and Structures.
- E Install and operate necessary dewatering and surface water control measures in accordance with requirements of Section 01585 – Control of Ground and Surface Water.

3.2 PROTECTION

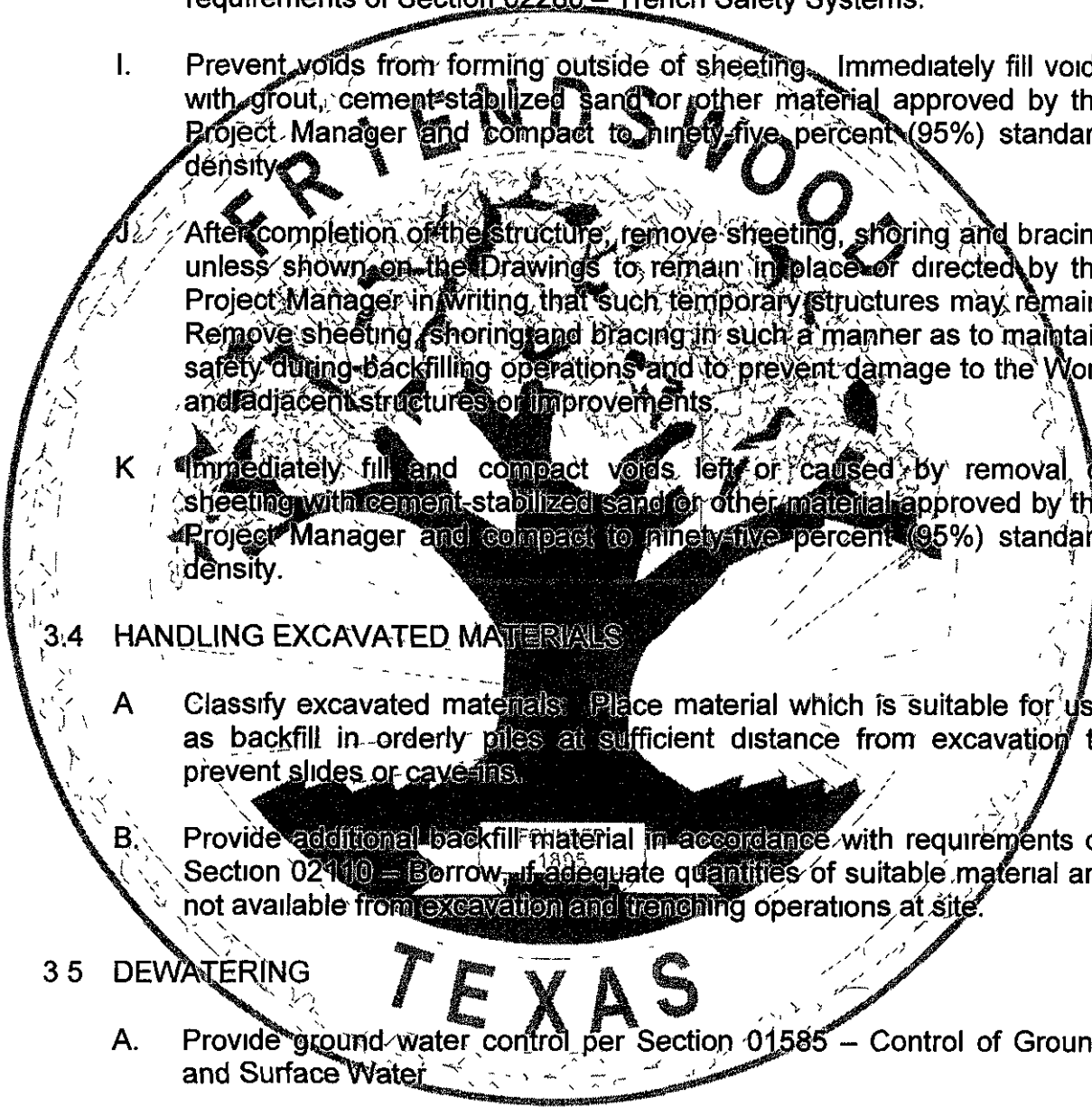
- A Protect trees, shrubs, lawns, existing structures and other permanent objects outside of grading limits and within grading limits as designated on the Drawings and in accordance with requirements of Section 01560 – Tree and Plant Protection.
- B Protect and support above-grade and below-grade utilities which are to remain.
- C Restore damaged permanent facilities to pre-construction conditions unless replacement or abandonment of facilities is indicated on the

Drawings

- D Prevent erosion of excavations and backfill. Do not allow water to pond in excavations.
- E Maintain excavation and backfill areas until start of subsequent work. Repair and recompact slides, washouts, settlements or areas with loss of density at no additional cost to the City.

3.3 EXCAVATION

- A Perform excavation work so that underground structures can be installed to depths and alignments shown on the Drawings. Use caution during excavation work to avoid disturbing surrounding ground and existing facilities and improvements. Keep excavation to the absolute minimum necessary. No additional payment will be made for excess excavation not authorized by the Project Manager.
- B. Upon discovery of unknown utilities, badly deteriorated utilities, utilities not designated for removal or concealed conditions, discontinue work at that location. Notify the Project Manager and obtain instructions before proceeding in such areas.
- C Immediately notify agency or company owning any line which is damaged, broken or disturbed. Obtain approval from the Project Manager and agency for any repairs or relocations, whether temporary or permanent.
- D. Avoid settlement of surrounding soil due to equipment operations, excavation procedures, vibration, dewatering or other construction methods.
- E Provide surface drainage during construction to protect work and to avoid nuisance to adjoining property. Where required, provide proper dewatering and piezometric pressure control during construction.
- F. Conduct hauling operations so that trucks and other vehicles do not create dirt nuisance in streets. Verify that truck beds are sufficiently tight and loaded in such a manner such that objectionable materials will not spill onto streets. Promptly clear away any dirt, mud or other materials that spill onto streets or are deposited onto streets by vehicle tires.
- G Maintain permanent benchmarks, monumentation and other reference points. Unless otherwise directed, replace those which are damaged or destroyed by the Work.

- 
- H Provide sheeting, shoring and bracing where required to safely complete the Work, to prevent excavation from extending beyond limits indicated on the Drawings and to protect the Work and adjacent structures or improvements. Use sheeting, shoring and bracing to protect workmen and the general public, and which conforms to requirements of Section 02280 – Trench Safety Systems.
 - I. Prevent voids from forming outside of sheeting. Immediately fill voids with grout, cement-stabilized sand or other material approved by the Project Manager and compact to ninety-five percent (95%) standard density.
 - J After completion of the structure, remove sheeting, shoring and bracing unless shown on the Drawings to remain in place or directed by the Project Manager in writing that such temporary structures may remain. Remove sheeting, shoring and bracing in such a manner as to maintain safety during backfilling operations and to prevent damage to the Work and adjacent structures or improvements.
 - K Immediately fill and compact voids left or caused by removal of sheeting with cement-stabilized sand or other material approved by the Project Manager and compact to ninety-five percent (95%) standard density.

3.4 HANDLING EXCAVATED MATERIALS

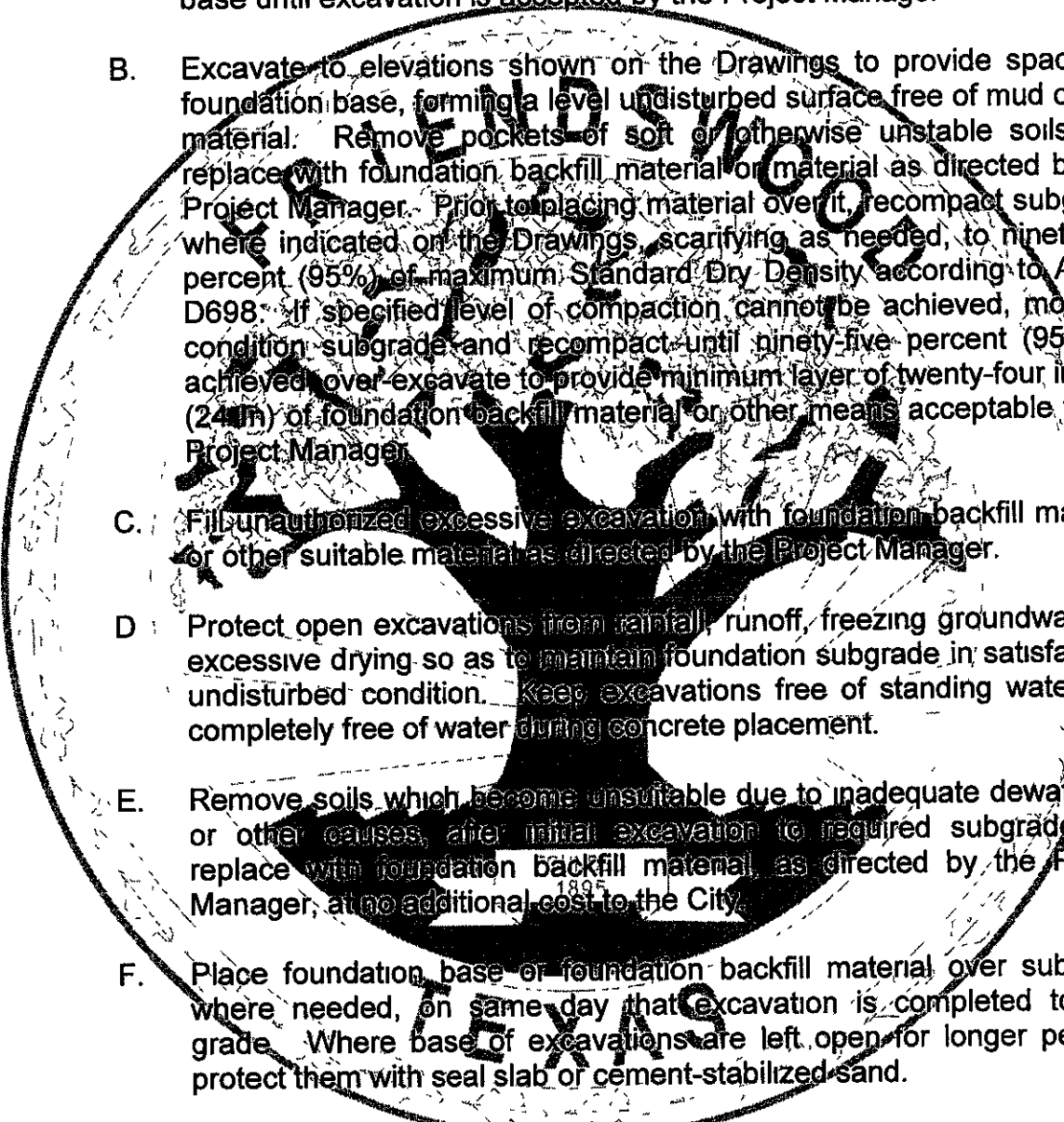
- A Classify excavated materials. Place material which is suitable for use as backfill in orderly piles at sufficient distance from excavation to prevent slides or cave-ins.
- B. Provide additional backfill material in accordance with requirements of Section 02110 – Borrow, if adequate quantities of suitable material are not available from excavation and trenching operations at site.

3.5 DEWATERING

- A. Provide ground water control per Section 01585 – Control of Ground and Surface Water.
- B. Keep ground water surface elevation minimum of two feet (2 Ft) below bottom of foundation base.
- C Maintain ground water control as directed by Section 01585 – Control of Ground and Surface Water and until structure is sufficiently complete to provide required weight to resist hydrostatic uplift with minimum safety

factor of one and two tenths (1 2)

3.6 FOUNDATION EXCAVATION

- 
- A. Notify the Project Manager at least forty-eight hours (48 Hrs) prior to planned completion of foundation excavations. Do not place foundation base until excavation is accepted by the Project Manager.
 - B. Excavate to elevations shown on the Drawings to provide space for foundation base, forming a level undisturbed surface free of mud or soft material. Remove pockets of soft or otherwise unstable soils and replace with foundation backfill material or material as directed by the Project Manager. Prior to placing material over it, recompact subgrade where indicated on the Drawings, scarifying as needed, to ninety-five percent (95%) of maximum Standard Dry Density according to ASTM D698. If specified level of compaction cannot be achieved, moisture condition subgrade and recompact until ninety-five percent (95%) is achieved, over excavate to provide minimum layer of twenty-four inches (24 in) of foundation backfill material or other means acceptable to the Project Manager.
 - C. Fill unauthorized excessive excavation with foundation backfill material or other suitable material as directed by the Project Manager.
 - D. Protect open excavations from rainfall, runoff, freezing groundwater or excessive drying so as to maintain foundation subgrade in satisfactory, undisturbed condition. Keep excavations free of standing water and completely free of water during concrete placement.
 - E. Remove soils which become unsuitable due to inadequate dewatering, or other causes, after initial excavation to required subgrade and replace with foundation backfill material as directed by the Project Manager, at no additional cost to the City.
 - F. Place foundation base or foundation backfill material over subgrade where needed, on same day that excavation is completed to final grade. Where base of excavations are left open for longer periods, protect them with seal slab or cement-stabilized sand.
 - G. Use filter fabric as specified in Section 02015 – Geotextile to separate crushed aggregate and other free draining Class I materials from native soils or select material backfill. Overlap fabric minimum of twelve inches (12 in) beyond where another material stops contact with soil.
 - H. Place crushed aggregate and other Class I materials in uniform layers of eight inch (8 in) maximum thickness. Perform compaction by means

of at least two (2) passes of vibratory compactor

3.7 FOUNDATION BASE

- A Place foundation base after subgrade is properly prepared, including placement of foundation backfill where needed. Use foundation base consisting of twelve inch (12 in) layer of crushed stone aggregate or cement-stabilized sand. Alternately, seal slab with minimum thickness of four inches (4 in) may be placed. Extend foundation base minimum of twelve inches (12 in) beyond edge of structure foundation, unless shown otherwise on the Drawings.
- B Where foundation base and foundation backfill are of same material, both can be placed in one (1) operation.

3.8 BACKFILL

- A. Complete backfill to surface of natural ground or to lines and grades shown on the Drawings. Remove forms, lumber, trash and debris from structures. Use select fill for backfill. Existing material that qualifies as select material may be used, unless indicated otherwise on the Drawings. Deposit backfill in uniform layers and compact each layer as specified.
- B Do not place backfill against concrete walls or similar structures until laboratory test breaks indicate that concrete has reached minimum of eighty-five percent (85%) of specified compressive strength. Where walls are supported by slabs or intermediate walls, do not begin backfill operations until slab or intermediate walls have been placed and concrete has attained sufficient strength.
- C. Remove concrete forms before starting backfill and remove shoring and bracing as work progresses.
- D. Maintain backfill material at plus or minus three percent ($\pm 3\%$) of optimum moisture content, unless otherwise approved by the Project Manager. Place fill material in uniform eight inch (8 in) maximum loose layers. Compact fill to at least ninety-five percent (95%) of maximum Standard Proctor Density according to ASTM D698 below paved areas. Compact fill to at least ninety-five percent (95%) around structures below unpaved areas.
- E Where backfill is placed against sloped excavation surface, run compaction equipment across boundary of cut slope and backfill to form compacted slope surface for placement of next layer of backfill.

- F Place backfill using cement-stabilized sand in accordance with Section 02145 – Cement-Stabilized Sand
- G Hydraulic or pneumatic equipment shall be used for all backfill operations. At no time shall the lift exceed the specifications above, even when using heavy construction equipment as a compact device

3.9 FIELD QUALITY CONTROL

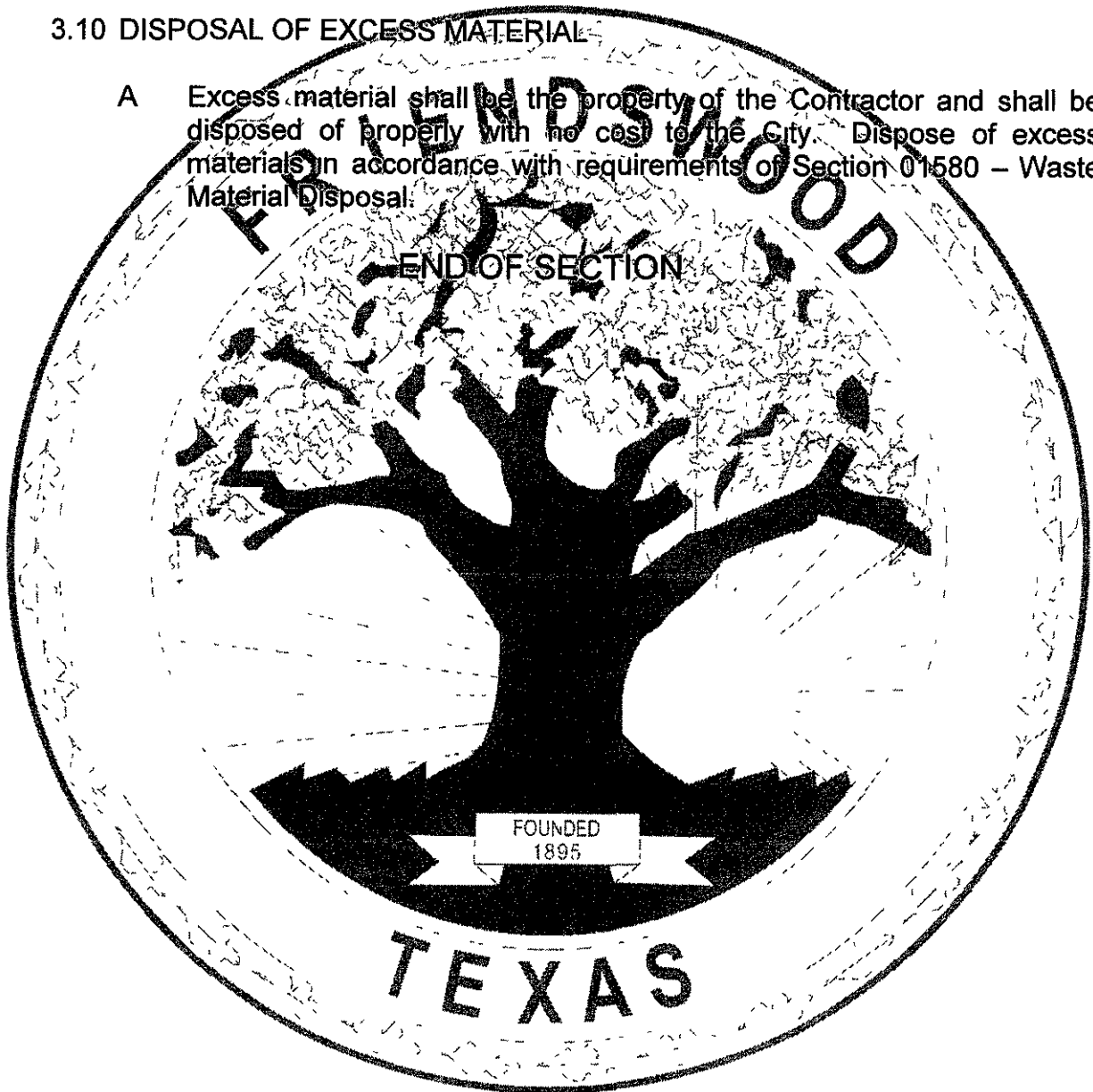
- A. Testing shall be performed under provisions of Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures.
- B. Tests shall be performed initially on minimum of one (1) different sample of each material type for plasticity characteristics, in accordance with ASTM D4318 and for gradation characteristics, in accordance with Tex-101-E and Tex-110-E. Additional classification tests will be performed whenever there is a noticeable change in material gradation or plasticity.
- C. In-place density tests of compacted subgrade and backfill shall be performed according to ASTM D1556 or ASTM D2922 and ASTM D3017 and at following frequencies and conditions:
 - 1. Minimum of one (1) test for each lift of bedding and backfill material at intervals of five hundred feet (500 Ft) measured along the trench centerline or between every manhole, whichever results in greatest number of density tests, as determined by the Project Manager.
 - 2. A minimum of three (3) density tests for each full work shift
 - 3. Density tests shall be performed in all placement areas.
 - 4. Number of tests shall be increased when inspection determines that soil types or moisture contents are not uniform or when compacting effort is variable and not considered sufficient to attain uniform density.
 - 5. Identify elevation of test with respect to natural ground
 - 6. Record approximate depth of lift tested
- D. At least one (1) test for moisture-density relationships shall be initially performed for each type of backfill material in accordance with ASTM D698. Perform additional moisture-density relationship test once a

month or whenever there is noticeable change in material gradation or plasticity

- E When tests indicate work does not meet specified compaction requirements, recondition, recompact and retest at Contractor's expense

3.10 DISPOSAL OF EXCESS MATERIAL

- A Excess material shall be the property of the Contractor and shall be disposed of properly with no cost to the City. Dispose of excess materials in accordance with requirements of Section 01580 – Waste Material Disposal.



SECTION 02125

EXCAVATION AND BACKFILL FOR UTILITIES

PART I. GENERAL

1.1 GENERAL REQUIREMENTS

- A. Excavation, trenching, foundation, embedment and backfill for installation of utilities, including manholes and other related structures.

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices:

1. No separate payment will be made for trench excavation, embedment and backfill under this Section. Include cost in unit price for installed underground piping, sewer, conduit or duct work.

2. When the Project Manager directs the Contractor to over-excavate trench bottom, the Contractor shall be paid by the unit price bid per linear foot under Bid Item - Six inches (6 In) over-excavation of Trench Bottom.

- a. No payment shall be paid if the Project Manager does not direct the Contractor to over-excavate trench bottom.

- b. No over excavation shall be measured or paid when unsuitable conditions result from dewatering system not in conformance with Section 01585 - Control of Ground and Surface Water.

3. No separate payment shall be made for performing Critical Location exploratory excavation. Include cost in the unit price for work requiring critical location.

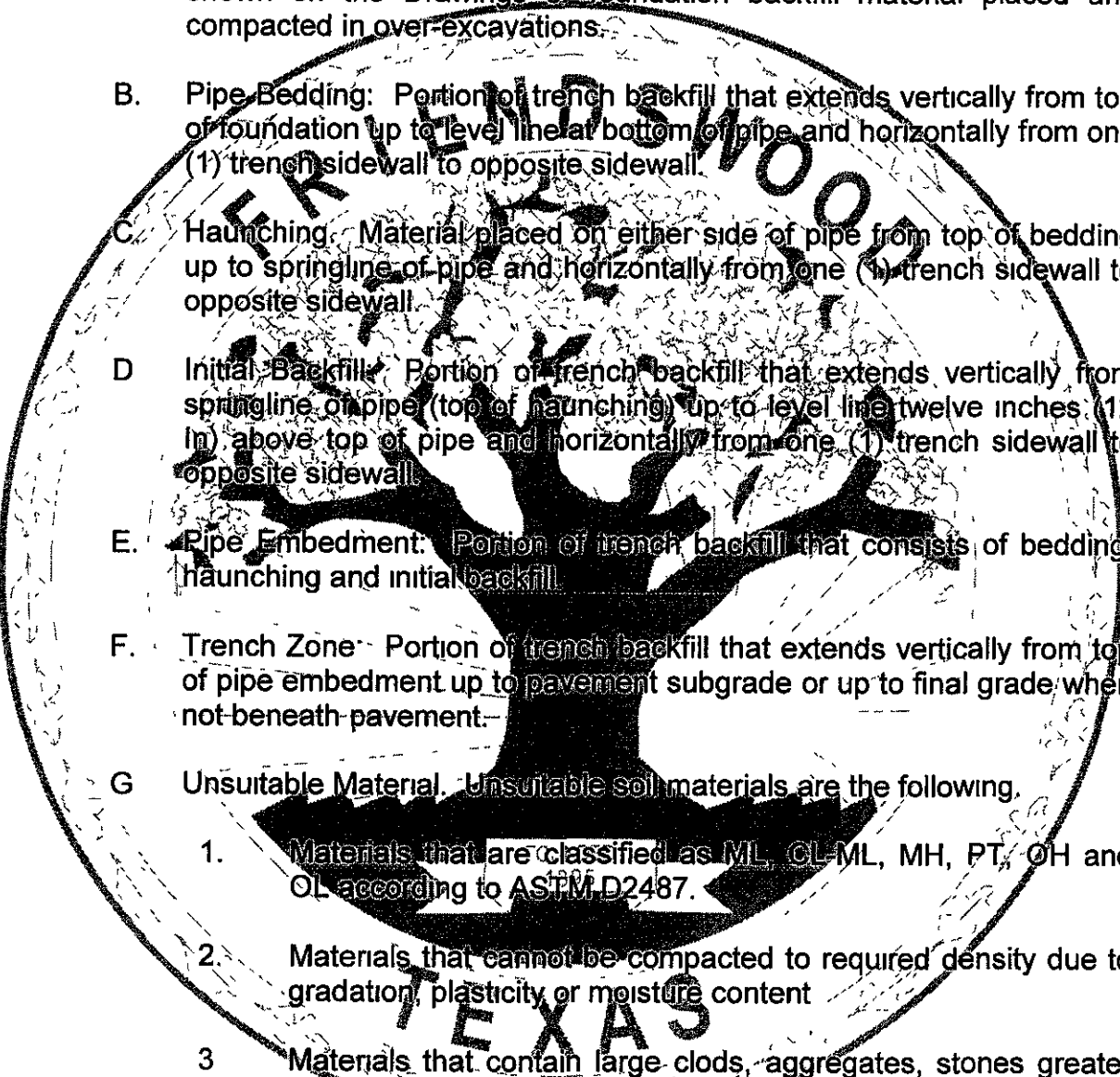
4. Refer to Section 01270 - Measurement and Payment for unit price procedures

B. Stipulated Price (Lump Sum).

1. If Contract is Stipulated Price Contract, payment for Work in

this Section shall be included in Total Stipulated Price.

1.3 DEFINITIONS

- 
- A. **Pipe Foundation:** Suitable and stable native soils that are exposed at trench subgrade after excavation to depth of bottom of bedding as shown on the Drawings or foundation backfill material placed and compacted in over-excavations.
- B. **Pipe Bedding:** Portion of trench backfill that extends vertically from top of foundation up to level line at bottom of pipe and horizontally from one (1) trench sidewall to opposite sidewall.
- C. **Haunching:** Material placed on either side of pipe from top of bedding up to springline of pipe and horizontally from one (1) trench sidewall to opposite sidewall.
- D. **Initial Backfill:** Portion of trench backfill that extends vertically from springline of pipe (top of haunching) up to level line twelve inches (12 in) above top of pipe and horizontally from one (1) trench sidewall to opposite sidewall.
- E. **Pipe Embedment:** Portion of trench backfill that consists of bedding, haunching and initial backfill.
- F. **Trench Zone:** Portion of trench backfill that extends vertically from top of pipe embedment up to pavement subgrade or up to final grade when not beneath pavement.
- G. **Unsuitable Material.** Unsuitable soil materials are the following.
1. Materials that are classified as ML, CL-ML, MH, PT, OH and OL according to ASTM D2487.
 2. Materials that cannot be compacted to required density due to gradation, plasticity or moisture content
 3. Materials that contain large clods, aggregates, stones greater than two inches (2 in) in any dimension, debris, vegetation, waste or any other deleterious materials
 4. Materials that are contaminated with hydrocarbons or other chemical contaminants
- H. **Suitable Material:** Suitable soil materials are those meeting specification requirements. Materials mixed with lime or cement that

can be compacted to required density and meeting requirements for suitable materials may be considered suitable materials, unless otherwise indicated

- I Backfill: Suitable material meeting specified quality requirements placed and compacted under controlled conditions.
- J Ground Water Control Systems. Installations external to trench, such as well points, eductors or deep wells. Ground water control includes dewatering to lower ground water, intercepting seepage which would otherwise emerge from side or bottom of trench excavation and depressurization to prevent failure or heaving of excavation bottom. Refer to Section 01585 – Control of Ground and Surface Water.
- K Surface Water Control. Diversion and drainage of surface water runoff and rain water away from trench excavation. Rain water and surface water accidentally entering trench shall be controlled and removed as part of excavation drainage.
- L Excavation Drainage: Removal of surface and seepage water in trench by sump pumping and using drainage layer, as defined in ASTM D2321, placed on foundation beneath pipe bedding or thickened bedding layer of Class I material.
- M Trench Conditions are defined with regard to stability of trench bottom and trench walls of pipe embedment zone. Maintain trench conditions that provide for effective placement and compaction of embedment material directly on or against undisturbed soils or foundation backfill, except where structural trench support is necessary.
 - 1. Dry Stable Trench: Stable and substantially dry trench conditions exist in pipe embedment zone as result of typically dry soils or achieved by ground water control (dewatering or depressurization) for trenches extending below ground water level.
 - 2. Stable Trench with Seepage: Stable trench in which ground water seepage is controlled by excavation drainage
 - a Stable Trench with Seepage in Clay Soils: Excavation drainage is provided in lieu of or to supplement ground water control systems to control seepage and provide stable trench subgrade in predominately clayey soils prior to bedding placement.
 - b Stable Wet Trench in Sandy Soils. Excavation

drainage is provided in embedment zone in combination with ground water control in predominately sandy or silty soils

- N. **Unstable Trench:** Unstable trench conditions exist in pipe embedment zone if ground water inflow or high water content causes soil disturbances, such as sloughing, sliding, boiling, heaving or loss of density.
- O. **Sub-trench:** Sub-trench is special case of benched excavation. Sub-trench excavation below trench shields or shoring installations may be used to allow placement and compaction of foundation or embedment materials directly against undisturbed soils. Depth of sub-trench depends upon trench stability and safety as determined by Contractor.
- P. **Trench Dam:** Placement of low permeability material in pipe embedment zone or foundation to prohibit ground water flow along trench.
- Q. **Over-excavation and Backfill:** Excavation of subgrade soils with unsatisfactory bearing capacity or composed of otherwise unsuitable materials below top of foundation as shown on the Drawings and backfilled with foundation backfill material.
- R. **Foundation Backfill Materials:** Natural soil or manufactured aggregate of controlled gradation and geotextile filter fabrics as required, to control drainage and material separation. Foundation backfill material is placed and compacted as backfill to provide stable support for bedding. Foundation backfill materials may include concrete seal slabs.
- S. **Trench Safety Systems** include both protective systems and shoring systems as defined in Section 02280 - Trench Safety Systems.
- T. **Trench Shield (Trench Box):** Portable worker safety structure moved along trench as work proceeds, used as protective system and designed to withstand forces imposed on it by cave-in, thereby protecting persons within trench. Trench shields may be stacked if so designed or placed in series depending on depth and length of excavation to be protected.
- U. **Shoring System.** Structure that supports sides of an excavation to maintain stable soil conditions and prevent cave-ins or to prevent movement of ground affecting adjacent installations or improvements.
- V. **Special Shoring.** Shoring system meeting special shoring as specified in Paragraph 1.8, Special Shoring Design Requirements, for locations

identified on the Drawings.

1.4 REFERENCES

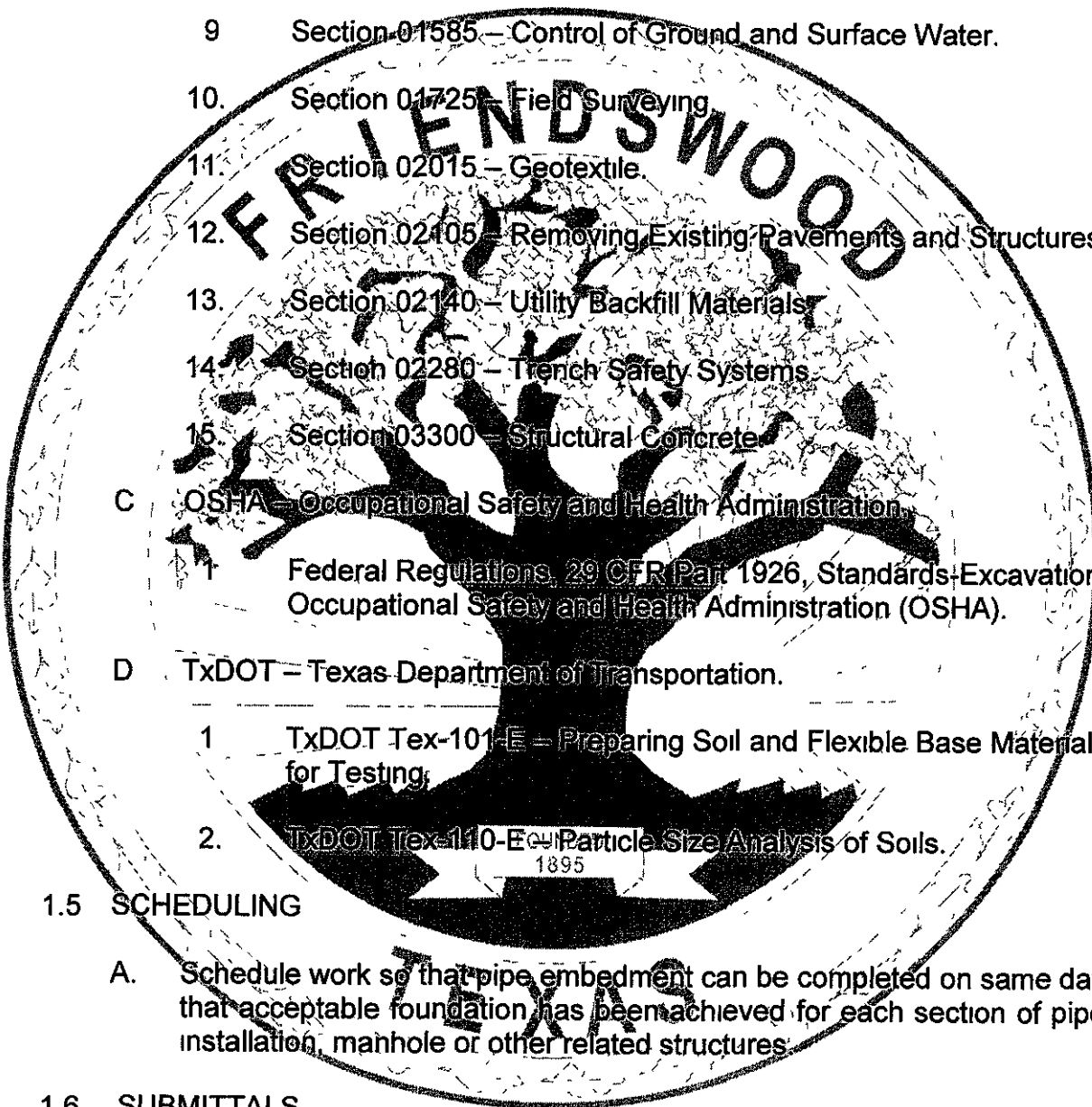
A. ASTM – American Society for Testing and Materials.

1. ASTM C12 – Standard Practice for Installing Vitrified Clay Pipe Lines.
2. ASTM D558 – Standard Test Methods for Moisture-Density Relations of Soil Cement Mixtures.
3. ASTM D698 – Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft.-lb/ft).
4. ASTM D1556 – Standard Test Method for Density and Unit Weight of Soil in Place by Sand-Cone Method.
5. ASTM D2321 – Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity Flow Applications.
6. ASTM D2487 – Standard Classification of Soils for Engineering Purposes.
7. ASTM D2922 – Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
8. ASTM D3017 – Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).
9. ASTM D4318 – Standard Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils.

B. CETS – City of Friendswood Technical Specifications.

1. Section 01270 – Measurement and Payment.
2. Section 01330 – Submittal Procedures
3. Section 01470 – Testing Laboratory Services
4. Section 01475 – Quality Control Testing Procedures
5. Section 01505 – Temporary Facilities and Controls

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6. Section 01555 – Traffic Control and Regulation
 7. Section 01560 – Tree and Plant Protection.
 8. Section 01580 – Waste Material Disposal.
 9. Section 01585 – Control of Ground and Surface Water.
 10. Section 01725 – Field Surveying.
 11. Section 02015 – Geotextile.
 12. Section 02105 – Removing Existing Pavements and Structures
 13. Section 02140 – Utility Backfill Materials
 14. Section 02280 – Trench Safety Systems
 15. Section 03300 – Structural Concrete
- C OSHA – Occupational Safety and Health Administration.
- 1 Federal Regulations, 29 CFR Part 1926, Standards-Excavation, Occupational Safety and Health Administration (OSHA).
- D TxDOT – Texas Department of Transportation.
- 1 TxDOT Tex-101-E – Preparing Soil and Flexible Base Materials for Testing;
 2. TxDOT Tex-110-E – Particle Size Analysis of Soils.

1.5 SCHEDULING

- A. Schedule work so that pipe embedment can be completed on same day that acceptable foundation has been achieved for each section of pipe installation, manhole or other related structures.

1.6 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures
- B. Submit planned typical method of excavation, backfill placement and compaction including:

- 1 Trench widths.
- 2 Procedures for foundation and pipe zone bedding placement and trench backfill compaction.
3. Procedures for assuring compaction against undisturbed soil when pre-manufactured trench safety systems are proposed.

C. Submit backfill material sources and product quality information in accordance with requirements of Section 02140 – Utility Backfill Materials.

D. Submit trench excavation safety program in accordance with requirements of Section 02280 – Trench Safety Systems. Include designs for special shoring meeting requirements defined in Paragraph 1.8, Special Shoring Design Requirements contained herein.

E. Submit record of location of utilities as installed, referenced to survey control points. Include locations of utilities encountered or rerouted. Give stations, horizontal dimensions, elevations, inverts and gradients.

F. Submit eleven inch by seventeen inch (11 in x 17 in) copy of the Drawing with plotted utility or obstruction location titled "Critical Location Report" to the Project Manager.

1.7 TESTING

A. Testing and analysis of backfill materials for soil classification and compaction during construction shall be performed by an independent laboratory in accordance with requirements of Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures and as specified in this Section.

B. Perform backfill material source qualification testing in accordance with requirements of Section 02140 – Utility Backfill Materials.

1.8 SPECIAL SHORING DESIGN REQUIREMENTS

A. Have special shoring designed or selected by the Contractor's Professional Engineer to provide support for sides of excavations, including soils and hydrostatic ground water pressures as applicable and to prevent ground movements affecting adjacent installations or improvements such as structures, pavements and utilities. Special shoring may be a premanufactured system selected by the Contractor's Professional Engineer licensed by the State of Texas to meet project site requirements based on manufacturer's standard design

PART II PRODUCTS

2.1 EQUIPMENT

- A. Perform excavation with hydraulic excavator or other equipment suitable for achieving requirements of this Section.
- B. Use only hand-operated pneumatic or hydraulic tamping equipment until minimum cover of twelve inches (12 In) is obtained over pipes, conduits and ducts. Do not use heavy compacting equipment until adequate cover is attained to prevent damage to pipes, conduits or ducts.
- C. Use trench shields or other protective systems or shoring systems which are designed and operated to achieve placement and compaction of backfill directly against undisturbed native soil.
- D. Use special shoring systems where required which may consist of braced sheeting, braced soldier piles and lagging, slide rail systems or other systems meeting requirements as specified in Paragraph 1.8, Special Shoring Design Requirements.

2.2 MATERIAL CLASSIFICATIONS

- A. Embedment and Trench Zone Backfill Materials: Conform to classifications and product descriptions of Section 02140 - Utility Backfill Materials.
- B. Concrete Backfill: Conform to requirements for Class A concrete as specified in Section 03300 - Structural Concrete.
- C. Geotextile (Filter Fabric): Conform to requirements of Section 02015 - Geotextile.
- D. Concrete for Trench Dams: Concrete backfill or three (3) sack premixed (bag) concrete.
- E. Timber Shoring Left in Place: Untreated oak.

PART III: EXECUTION

3.1 STANDARD PRACTICE

- A. Install flexible pipe, including "semi-rigid" pipe, to conform to standard

practice described in ASTM D2321 and as described in this Section. Where an apparent conflict occurs between standard practice and requirements of this Section, this Section governs.

B Install rigid pipe to conform to standard practice described in ASTM C12 and as described in this Section. Where an apparent conflict occurs between standard practice and requirements of this Section, this Section governs.

C Classification of material will be determined by the Project Manager.

3.2 PREPARATION

A Establish traffic control to conform to requirements of Section 01555 – Traffic Control and Regulation. Maintain barricades and warning lights for streets and intersections affected by the Work and are considered hazardous to traffic movements.

B Perform work to conform to applicable safety standards and regulations. Employ trench safety system as specified in Section 02280 – Trench Safety Systems.

C Immediately notify agency or company owning any existing utility line which is damaged, broken or disturbed. Obtain approval from the Project Manager and agency for any repairs or relocations, either temporary or permanent.

D Remove existing pavements and structures, including sidewalks and driveways, to conform to requirements of Section 02105 – Removing Existing Pavements and Structures, as applicable.

E Install and operate necessary dewatering and surface-water control measures to conform to Section 01585 – Control of Ground and Surface Water. Provide stable trench to allow installation in accordance with the Technical Specifications.

F Maintain permanent benchmarks, monumentation and other reference points. Unless otherwise directed in writing, replace those which are damaged or destroyed in accordance with Section 01725 – Field Surveying.

3.3 CRITICAL LOCATION INVESTIGATION

A Horizontal and vertical location of various underground lines shown on the Drawings, including but not limited to water lines, gas lines, storm sewers, sanitary sewers, telecommunication lines, electric lines or

power ducts, pipelines, concrete and debris, are based on best information available but are only approximate locations. **At Critical Locations shown on the Drawings, field verify horizontal and vertical locations of such lines within zone two feet (2 Ft) vertically and four feet (4 Ft) horizontally of the proposed work.**

- 1 Verify location of existing utilities a minimum of seven working days (7-wD) in advance of pipe-laying activities based on daily pipe laying rate. Use extreme caution and care when uncovering these lines.
 - 2 Notify the Project Manager in writing immediately upon identification of obstruction. In event of failure to identify obstruction a minimum of seven days (7 D) in advance, the Contractor shall not be entitled to extra cost for downtime including, but not limited to, payroll, equipment, overhead, demobilization and remobilization, until seven days (7 D) has passed from the time the Project Manager is notified of obstruction.
 - 3 **Verify all locations where there is specified to be a tie-in into existing utilities or infrastructure before the start of excavation so as to verify all grades and locations.** Failure to do so shall result in the replacement of the installed work at the Contractor's cost for any work installed before finding an error in elevations or locations.
- B** Notify involved utility companies of date and time that excavation will occur and request that their respective utility lines be marked in field. Comply with utility or pipeline company requirements that their representative be present during excavation. Provide the Project Manager with at least forty-eight hours (48 Hrs) notice prior to excavation or related work.
- C** Survey vertical and horizontal locations of obstructions relative to project baseline and datum and plot results on eleven inch by seventeen inch (11 In x 17 In) copy of the Drawings. For large diameter water lines, submit to the Project Manager for approval, with horizontal and vertical alignment dimensions for connections to existing lines tied into project baseline, and signed and sealed by Registered Professional Land Surveyor (R P L S) licensed by the State of Texas

3.4 PROTECTION

- A.** Protect trees, shrubs, lawns, existing structures and other permanent objects outside of grading limits and within grading limits as designated

on Drawings and in accordance with requirements of Section 01560 – Tree and Plant Protection.

- B. Protect and support above-grade and below-grade utilities which are to remain
- C. Restore damaged permanent facilities to pre-construction conditions unless replacement or abandonment of facilities is indicated on the Drawings.
- D. Take measures to minimize erosion of trenches. Do not allow water to pond in trenches. Where slides, washouts, settlements or areas with loss of density or pavement failures or potholes occur, repair, recompact and pave those areas at no additional cost to the City.

3.5 EXCAVATION

- A. Except as otherwise specified or shown on the Drawings, install underground utilities in open cut trenches with vertical sides
- B. Perform excavation work so that pipe, conduit and ducts can be installed to depths and alignments shown on the Drawings. Avoid disturbing surrounding ground and existing facilities and improvements.
- C. Determine trench excavation widths using TABLE 4.1 – TRENCH EXCAVATION WIDTHS as related to pipe outside diameter (O D) in this Section.
- D. Use sufficient trench width or benches above embedment zone for installation of well point headers or manifolds and pumps where depth of trench makes it uneconomical or impractical to pump from surface elevation. Provide sufficient space between shoring cross braces to permit equipment operations and handling of forms, pipe, embedment and backfill and other materials.
- E. Upon discovery of unknown utilities, badly deteriorated utilities, utilities not designated for removal or concealed conditions, discontinue work at that location. Notify the Project Manager and obtain instructions before proceeding.
- F. Shoring of Trench Walls
 - 1. Install Special Shoring in advance of trench excavation or simultaneously with trench excavation, so that soils within full height of trench excavation walls will remain laterally supported at all times

- 2 For all types of shoring, support trench walls in pipe embedment zone throughout installation. Provide trench wall supports sufficiently tight to prevent washing trench wall soil out from behind trench wall support

- 3 Leave sheeting driven into or below pipe embedment zone in place to preclude loss of support of foundation and embedment materials, unless otherwise directed by the Project Manager. Leave rangers, walers and braces in place as long as required to support sheeting, which has been cut off and trench wall in vicinity of pipe zone.

4. Employ special methods for maintaining integrity of embedment or foundation material. Before moving supports, place and compact embedment to sufficient depths to provide protection of pipe and stability of trench walls. As supports are moved, finish placing and compacting embedment.

5. If sheeting or other shoring is used below top of pipe embedment zone, do not disturb pipe foundation and embedment materials by subsequent removal. Maximum thickness of removable sheeting extending into embedment zone shall be equivalent of one inch (1 in) thick steel plate. As sheeting is removed, fill in voids left with grouting material.

G Use of Trench Shields. When trench shield (trench box) is used as worker safety device, the following requirements apply:

1. Make trench excavations of sufficient width to allow shield to be lifted or pulled freely, without damage to trench sidewalls.

2. Move trench shields so that pipe and backfill materials, after placement and compaction, are not damaged nor disturbed, nor degree of compaction reduced. Re-compact after shield is moved if soil is disturbed.

3. When required, place, spread and compact pipe foundation and bedding materials beneath shield. For backfill above bedding, lift shield as each layer of backfill is placed and spread. Place and compact backfill materials against undisturbed trench walls and foundation.

4. Maintain trench shield in position to allow sampling and testing to be performed in safe manner.

5. Conform to applicable Government regulations.

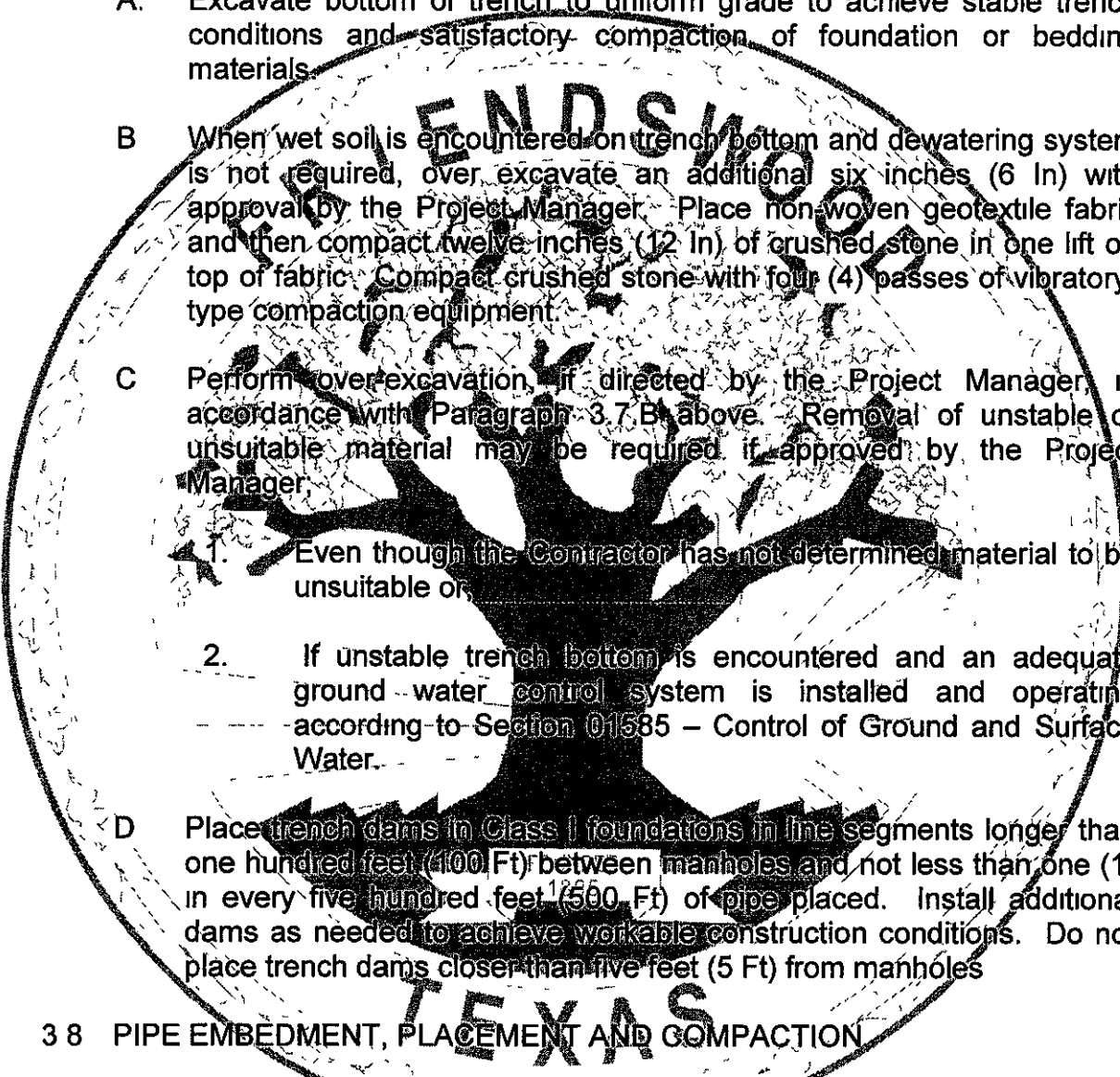
- H Voids under paving area outside shield caused by the Contractor's work will require removal of pavement, consolidation and replacement of pavement in accordance with the Contract Documents. Repair damage resulting from failure to provide adequate supports.
- I Place sand or soil behind shoring or trench shield to prevent soil outside shoring from collapsing and causing voids under pavement. Immediately pack suitable material in outside voids following excavation to avoid caving of trench walls.
- J Coordinate excavation within fifteen feet (15 Ft) of any products pipeline with company's representative. Support pipeline with methods agreed to by the Pipeline Company's representative. Use small, rubber tired excavator such as a backhoe, to do exploratory excavation. Bucket that is used to dig in close proximity to pipelines shall not have teeth or shall have guard installed over teeth to approximate bucket without teeth. Excavate by hand within one foot (1 Ft) of the pipeline. Do not use larger excavation equipment than normally used to dig trench in vicinity of pipeline until pipelines have been uncovered and fully exposed. Do not place large excavation and hauling equipment directly over pipelines, unless approved by the Pipeline Company's representative.
- K. When, during excavation to uncover pipelines, a screwed collar or an oxyacetylene weld is exposed, immediately notify the Project Manager. Provide supports for collar or welds. Discuss with the Pipeline Company's representative and determine methods of supporting collar or weld during excavation and later backfilling operations. When collar is exposed, request the Pipeline Company to provide welder in a timely manner to weld ends of collar prior to backfilling of excavation.

3.6 HANDLING EXCAVATED MATERIALS

- A Use only excavated materials, which are suitable as defined in this Section and conforming to Section 02140 – Utility Backfill Materials. Place material suitable for backfilling in stockpiles at distance from trench to prevent slides or cave-ins.
- B When required, provide additional backfill material conforming to requirements of Section 02140 – Utility Backfill Materials.
- C Do not place stockpiles of excess excavated materials on streets and adjacent properties. Protect backfill material to be used on site. Maintain site conditions in accordance with Section 01505 – Temporary

Facilities and Controls. Excavate trench so that pipe is centered in trench. Do not obstruct sight distance for vehicles utilizing roadway or detours with stockpiled materials.

3.7 TRENCH FOUNDATION

- 
- A. Excavate bottom of trench to uniform grade to achieve stable trench conditions and satisfactory compaction of foundation or bedding materials.
 - B. When wet soil is encountered on trench bottom and dewatering system is not required, over excavate an additional six inches (6 In) with approval by the Project Manager. Place non-woven geotextile fabric and then compact twelve inches (12 In) of crushed stone in one lift on top of fabric. Compact crushed stone with four (4) passes of vibratory-type compaction equipment.
 - C. Perform over excavation, if directed by the Project Manager, in accordance with Paragraph 3.7.B above. Removal of unstable or unsuitable material may be required if approved by the Project Manager.
 - 1. Even though the Contractor has not determined material to be unsuitable or
 - 2. If unstable trench bottom is encountered and an adequate ground water control system is installed and operating according to Section 01535 – Control of Ground and Surface Water.
 - D. Place trench dams in Class I foundations in line segments longer than one hundred feet (100 Ft) between manholes and not less than one (1) in every five hundred feet (500 Ft) of pipe placed. Install additional dams as needed to achieve workable construction conditions. Do not place trench dams closer than five feet (5 Ft) from manholes

3.8 PIPE EMBEDMENT, PLACEMENT AND COMPACTION

- A. Remove loose, sloughing, caving or otherwise unsuitable soil from bottoms and sidewalls of trenches immediately prior to placement of embedment materials
- B. Place embedment including bedding, haunching and initial backfill as shown on the Drawings
- C. For pipe installation, manually spread embedment materials around

pipe to provide uniform bearing and side support when compacted. Protect flexible pipe from damage during placing of pipe zone bedding material. Perform placement and compaction directly against undisturbed soils in trench sidewalls or against sheeting which is to remain in place.

- D. Do not place trench shields or shoring within height of embedment zone unless means to maintain density of compacted embedment material are used. If moveable supports are used in embedment zone, lift supports incrementally to allow placement and compaction of material against undisturbed soil.
- E. Place geotextile to prevent particle migration from in-situ soil into open-graded (Class I) embedment materials or drainage layers.
- F. Do not damage coatings or wrappings of pipes during backfilling and compacting operations. When embedding coated or wrapped pipes, do not use crushed stone or other sharp angular aggregates.
- G. Place haunching material manually around pipe and compact it to provide uniform bearing and side support. If necessary, hold small-diameter or lightweight pipe in place during compaction of haunch areas and placement beside pipe with sand bags or other suitable means.
- H. Place electrical conduit, if used, directly on foundation without bedding.
- I. Shovel-in-place and compact embedment material using pneumatic or hydraulic tampers in restricted areas and vibratory-plate compactors or engine-powered jumping jacks in unrestricted areas. Compact each lift before proceeding with placement of next lift. Water tamping or jetting shall not allowed.
- J. For water lines construction embedment, use bank run sand concrete sand gem sand pea gravel or crushed limestone as specified in Section 02140 – Utility Backfill Material. For water lines adhere to the following subparagraph numbers 1 and 2; for utility installation other than water, adhere to numbers 3 and 4 below:

1 Class I, II and III Embedment Materials

- a Maximum six inches (6 In) compacted lift thickness
- b Compact to achieve minimum of ninety-five percent (95%) of maximum dry density as determined according to ASTM D698.

- c. Moisture content to be within plus or minus three percent ($\pm 3\%$) of optimum as determined according to ASTM D698, unless otherwise approved by the Project Manager.

2. Cement-Stabilized Sand (where required for special installations):

- a. Maximum six inches (6 in) compacted thickness.
- b. Compact to achieve minimum of ninety-five percent (95%) of maximum dry density as determined according to ASTM D698.
- c. Moisture content to be on dry side of optimum as determined according to ASTM D698 but sufficient for effective hydration.

3. Class I Embedment Materials:

- a. Maximum six inches (6 in) compacted lift thickness.
- b. Systematic compaction by at least two (2) passes of vibrating equipment. Increase compaction effort as necessary to effectively embed pipe to meet deflection test criteria.
- c. Moisture content as determined by the Contractor for effective compaction without softening soil of trench bottom, foundation or trench walls.

4. Class II Embedment and Cement-Stabilized Sand:

- a. Maximum six inches (6 in) compacted thickness
- b. Compaction by methods determined by the Contractor to achieve minimum of ninety-five percent (95%) of maximum dry density as determined according to ASTM D698 for Class II materials and according to ASTM D558 for Cement-Stabilized materials
- c. Moisture content of Class II materials within three percent ($\pm 3\%$) of optimum as determined according to ASTM D698. Moisture content of Cement-Stabilized sands on dry side of optimum as determined according

to ASTM D558 but sufficient for effective hydration

- K. Place trench dams in Class I embedment in line segments longer than one hundred feet (100 Ft) between manholes and not less than one (1) in every five hundred feet (500 Ft) of pipe placed. Install additional dams as needed to achieve workable construction conditions. Do not place trench dams closer than five feet (5 Ft) from manholes

3.9 TRENCH ZONE BACKFILL PLACEMENT AND COMPACTION

- A. Place backfill for pipe or conduits and restore surface as soon as practicable. Leave only minimum length of trench open as necessary for construction.
- B. For water lines, backfill in trench zone, including auger pits, intermediate and site pits, with bank run sand select fill or random backfill material as specified in Section 02140 – Utility Backfill materials
- C. For sewer pipes, use backfill materials described by trench limits. For "trench zone backfill" under pavement and to within one foot (1 Ft) back of curb, use Cement-Stabilized sand for pipes of nominal sizes thirty-six inches (36 In) in diameter and smaller to level twelve inches (12 In) below the pavement. For sewer pipes forty-two inches (42 In) in diameter and larger, under pavement or natural ground, in satisfactory soil conditions, backfill from twelve inches (12 In) above top of pipe to twelve inches (12 In) below pavement with suitable on-site material or select backfill. For sewer pipes forty-two inches (42 In) in diameter and larger, under pavement or natural ground, in unsatisfactory soil conditions, backfill from twelve inches (12 In) above top of pipe to twelve inches (12 In) below pavement with suitable on-site material or select backfill. Use select backfill for rigid pavements or flexible base material for asphalt pavements for twelve (12) inch backfill directly under pavement. For backfill materials reference Section 02140 – Utility Backfill Materials.
- D. Where damage to completed pipe installation work is likely to result from withdrawal of sheeting, leave sheeting in place. Cut off sheeting one and one-half feet (1-1/2 Ft) or more above crown of pipe. Remove trench supports within five feet (5 Ft) from ground surface
- E. When shown on Drawings, random backfill of suitable material may be used in trench zone for trench excavations outside pavements.
- F. Place trench zone backfill in lifts and compact. Fully compact each lift before placement of next lift.

1. Class I, II, III or IV or combination thereof (Random Backfill):

- a. Maximum eight inches (8 In) compacted lift thickness.
- b. Compact by vibratory equipment to minimum of ninety-five percent (95%) of maximum dry density determined according to ASTM D698.
- c. Moisture content within plus or minus three percent ($\pm 3\%$) of optimum determined according to ASTM D698, unless otherwise approved by the Project Manager.

2. Cement-Stabilized Sand:

- a. Maximum lift thickness determined by the Contractor to achieve uniform placement and required compaction, but not to exceed twelve inches (12 In).
- b. Compact by vibratory equipment to minimum of ninety-five percent (95%) of maximum dry density determined according to ASTM D558.
- c. Moisture content on dry side of optimum determined according to ASTM D558 but sufficient for cement hydration.

3. — Select Backfill:

- a. Place in maximum eight inch (8 In) loose layers.
- b. Compaction by equipment providing tamping or kneading impact to minimum of ninety-five percent (95%) of maximum dry density determined according to ASTM D698.
- c. Moisture content within plus or minus three percent ($\pm 3\%$) above optimum determined according to ASTM D698, unless approved by the Project Manager.

G Unless otherwise shown on the Drawings, for trench excavations not under pavement or in the right of way, random backfill of suitable material may be used in trench zone as directed by the Project Manager.

- 1 Fat clays (CH) may be used as trench zone backfill outside

paved areas at the Contractor's option. When required density is not achieved, rework, dry out, use lime stabilization or other approved methods to achieve compaction requirements or use different suitable material at no additional cost to the City.

2. Maximum eight inch (8 In) compacted lift thickness for clayey soils and maximum eight inch (8 In) lift thickness for granular soils.
3. Compact to minimum of ninety percent (90%) of maximum dry density determined according to ASTM D698.
4. Moisture content as necessary to achieve density.

- H. For electric conduits, remove form work used for construction of conduits before placing trench zone backfill.
- I. Water soaking, jetting or compaction by backhoe bucket is not acceptable and shall not be used.

3.10 MANHOLES, JUNCTION BOXES AND OTHER PIPELINE STRUCTURES

- A. Meet requirements of adjoining utility installations for backfill of pipeline structures, as shown on the Drawings.
- B. Below paved areas, encapsulate manhole with Cement-Stabilized sand; minimum of one foot (1 Ft) below base, minimum one foot (1 Ft) around walls, up to within twelve inches (12 In) of pavement subgrade. Compact in accordance with Paragraph 3.9 F.2 of this Section.
- C. In unpaved areas use select fill for backfill. Existing material that qualifies as select material may be used, unless indicated otherwise on the Drawings. Deposit backfill in uniform layers and compact each layer as specified. Maintain backfill material at plus or minus three percent ($\pm 3\%$) of optimum moisture content, unless otherwise approved by the Project Manager. Place fill material in uniform eight inch (8 In) maximum loose layers. Compact fill to at least ninety-five percent (95%) of maximum Standard Proctor Density according to ASTM D698.

3.11 FIELD QUALITY CONTROL

- A. Test for material source qualifications as defined in Section 02140 – Utility Backfill Materials.
- B. Provide excavation and trench safety systems at locations and to depths required for testing and retesting during construction at no

additional cost to the City.

- C. Tests will be performed on minimum of three (3) different samples of each material type for plasticity characteristics, in accordance with ASTM D4318 and for gradation characteristics, in accordance with Tex-101-E and Tex-110-E. Additional classification tests shall be performed whenever there is noticeable change in material gradation or plasticity or when requested by the Project Manager.
- D. At least three (3) tests for moisture-density relationships shall be performed initially for backfill materials in accordance with ASTM D698 and for cement-stabilized sand in accordance with ASTM D558. Perform additional moisture-density relationship tests once a month or whenever there is noticeable change in material gradation or plasticity.
- E. In-place density tests of compacted pipe foundation, embedment and trench zone backfill soil materials shall be performed according to ASTM D1556 or ASTM D2922 and ASTM D3017 and at following frequencies and conditions:
1. For open cut construction projects and auger pits: Unless otherwise approved by the Project Manager, successful compaction to be measured by one (1) test per one hundred linear feet (100 Lf) measured along pipe for compacted embedment and one (1) test per one hundred linear feet (100 Lf) measured along pipe for compacted trench zone backfill material and one (1) test at each auger pit.
 2. A minimum of three (3) density tests for each full shift of Work
 3. Density tests shall be distributed among placement areas. Placement areas are pipe foundation, bedding, haunching, initial backfill and trench zone.
 4. The number of tests shall be increased if inspection determines that soil type or moisture content are not uniform or if compacting effort is variable and not considered sufficient to attain uniform density, as specified
 5. Density tests at various depths below fill surface, if required, shall be performed by pit excavation. Material in previously placed lifts may therefore be subject to acceptance/rejection
 6. Two (2) verification tests shall be performed adjacent to in-place tests showing density less than acceptance criteria. Placement will be rejected unless both verification tests show

acceptable results.

- 7 Recompacted placement shall be retested at same frequency as first test series, including verification tests
- 8 Identify elevation of test with respect to natural ground or pavement.

F. Recondition, recompact and retest at the Contractor's expense if tests indicate the Work does not meet specified compaction requirements For hardened soil/cement with nonconforming density, core and test for compressive strength at the Contractor's expense

G. Acceptability of crushed rock compaction will be determined by inspection

3.12 DISPOSAL OF EXCESS MATERIAL

A. Excess material shall be the property of the Contractor and shall be disposed of properly with no cost to the City. Dispose of excess materials in accordance with requirements of Section 01580 – Waste Material Disposal

PART IV: TABLES

4.1 TABLE EXCAVATION WIDTHS

Nominal Pipe Size, inches	Minimum Trench Width, inches
Less than 18"	O.D. + 18" 1895
18" to 30"	O.D. + 24"
36" to 42"	O.D. + 36"
Greater than 42"	O.D. + 48"

END OF SECTION

SECTION 02130

EXTRA UNIT PRICE WORK FOR EXCAVATION AND BACKFILL

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Measurement and payment applicable to extra unit price work items for excavation and backfill made necessary by unusual or unforeseen circumstances encountered during utility installations.
- B. Extra unit price work for excavation and backfill shall be paid only when authorized in advance by the Project Manager.

1.2 UNIT PRICES

- A. **Extra Excavation Around Obstructions:** Payment for excavation around obstructions shall be on a cubic yard basis measured in place, without deduction for volume occupied by portions of pipes, ducts, or other structures left in place across trenches excavated under this item.
- B. **Extra Hand Excavation:** Payment for extra hand excavation shall be on a cubic yard basis, measured in place.
- C. **Extra Machine Excavation:** Payment for extra machine excavation shall be on a cubic yard basis, measured in place.
- D. **Extra Placement of Backfill Material:** Payment for extra placement of backfill material shall be on a cubic yard basis, measured in place, for material installed as part of the Work. At discretion of the Project Manager, measurement of cubic yards may be calculated from volume of Extra Hand Excavation or Extra Machine Excavation for which replacement is made, minus volume of any Extra Placement of Granular Backfill authorized in conjunction with the Work.
- E. **Extra Placement of Granular Backfill:** Payment for extra placement of granular backfill material shall be on a cubic yard basis, measured in place.
- F. No separate payment will be made for surface water control, groundwater control, or for excavation drainage. Refer to Section 01270 – Measurement and Payment for unit price procedures.

1.3 DEFINITIONS

- A. **Excavation Around Obstructions:** Excavation necessitated by obstruction of pipes (other than service connections three inches (3 in) in diameter or less), ducts, or other structures, not shown on the Drawings, and of an unusual or unforeseen nature which interfere with installation of utility piping by normal methods of excavation or auguring.
- B. **Extra Hand Excavation:** Excavation by manual labor made necessary by unusual or unforeseen circumstances at locations approved in advance by the Project Manager.
- C. **Extra Machine Excavation:** Excavation by machine at or near project site to perform related work not included in original project scope but added for convenience of the City, as approved in advance by the Project Manager.
- D. **Extra Replacement of Backfill Material:** Handling, backfill, and compaction of excavated material authorized under extra work bid items for Extra Hand Excavation or Extra Machine Excavation as approved in advance by the Project Manager. Placement and compaction shall conform to requirements specified for excavation and backfill in Division 2 - Site Work.
- E. **Extra Placement of Granular Backfill:** Hauling, placing, and compacting granular backfill materials as approved by the Project Manager in conjunction with Extra Replacement of Backfill Material. Materials placed under this item shall conform to requirements for Bank Run Sand, Cement Stabilized Sand, Concrete Sand, Gem Sand, Crushed Stone, or Crushed Concrete specified for backfill material in Division 2 - Site Work.

1.4 REFERENCES

- A. **CETS – City of Friendswood Technical Specifications.**
1. Section 01270 – Measurement and Payment

PART II: PRODUCTS – Not Used

PART III: EXECUTION – Not Used

END OF SECTION

SECTION 02135

EXCAVATION FOR ROADWAY

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Excavation and compaction of materials for roadways.
- B. Excavation and compaction of materials for roadside ditches

1.2 MEASUREMENT AND PAYMENT

A Unit Prices:

1. Payment for roadway excavation shall be on a cubic yard basis
2. No payment will be made for material excavated under the following conditions:
 - a. More than two feet (2 Ft) outside of vertical planes behind back of curb.
 - b. For portion within limits of trench for utilities twenty-four inch (24 in) and greater constructed by open-cut methods
 - c. As indicated otherwise on the Drawings
3. Refer to Section 01270 - Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum).

1. If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price

1.3 REFERENCES

A ASTM – American Society for Testing and Materials

- 1 ASTM D698 – Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort

(12.44 ft-lbf/ft³).

2 ASTM D2216 – Standard Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

3 ASTM D2922 – Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)

4 ASTM D3017 – Standard Test Method for Water content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

5 ASTM D4318 – Standard Test Methods for Liquid Limit, Plastic Limit and Plasticity Index of Soils.

B. CFTS – City of Friendswood Technical Specifications.

1. Section 01270 – Measurement and Payment.

2. Section 01330 – Submittal Procedures.

3. Section 01470 – Testing Laboratory Services.

4. Section 01475 – Quality Control Testing Procedures

5. Section 01580 – Waste Material Disposal

6. Section 01725 – Field Surveying.

7. Section 02115 – Embankment

8. Section 02905 – Topsoil.

C. TCEQ – Texas Commission on Environmental Quality.

D. TDH – Texas Department of Health.

E. RRC – Railroad Commission of Texas

PART II: PRODUCTS

2.1 MATERIALS

A Provide topsoil conforming to requirements of Section 02905 – Topsoil.

- B Provide backfill which is excavated material, graded free of roots, lumps greater than six inches (6 In), rocks larger than three inches (3 In), organic material and debris.
- C. Provide structural backfill which is select material meeting following requirements.

- 1 Plasticity index: Not less than twelve (12) or more than twenty (20).

- 2 Maximum liquid limit: Forty-five (45)

PART III: EXECUTION

3.1 PREPARATION

- A Identify required lines, levels and datum. Coordinate with Section 01725 – Field Surveying.
- B. Identify and flag surface and aerial utilities.
- C. Notify utility companies to remove or relocate utilities.
- D Identify, stake and flag known utility locations below grade. Make temporary or permanent relocation of underground pipes, ducts, or utilities where indicated on the Drawings
- E. Upon discovery of unknown or badly deteriorated utilities or concealed conditions, discontinue work. Notify the Project Manager and obtain instructions before proceeding in such areas.
- F. Obtain approval of top soil quality before excavating and stockpiling

3.2 PROTECTION

- A Protect following from damage or displacement:
 - 1 Trees, shrubs, lawns, existing structures and other features outside of grading limits.
 - 2 Utilities either above or below grade, which are to remain

3.3 TOPSOIL REMOVAL

- A. Strip off topsoil from area to be excavated to minimum depth of six

inches (6 In), unless indicated otherwise on the Drawings

- B. Stockpile topsoil in designated location for reuse. Stockpile topsoil to depth not exceeding eight feet (8 Ft) Cover to protect from erosion.

3.4 SOIL EXCAVATION

- A. Excavate to lines and grades shown on the Drawings.
- B. Remove unsuitable material not meeting specifications. Backfill with embankment materials and compact to requirements of Section 02115 – Embankment
- C. Record location and plug and fill inactive water and oil wells. Conform to Texas Department of Health, Texas Commission on Environmental Quality and Texas Railroad Commission requirements. Notify the Project Manager prior to plugging wells.
- D. At intersections, grade back at minimum slope of one inch per foot (1 In/Ft). Produce smooth riding junction with intersecting street. Maintain proper drainage
- E. When area is inadvertently over-excavated, fill area in accordance with requirements of Section 02115 – Embankment at no additional cost to the City
- F. Remove material not qualified for use and excess soil not being reused from site in accordance with requirements of Section 01580 – Waste Material Disposal.

3.5 COMPACTION

- A. Maintain optimum moisture content of subgrade to attain required density
- B. Compact to following minimum densities at moisture content of optimum to plus or minus three percent ($\pm 3\%$) optimum as determined by ASTM D698, unless otherwise indicated on the Drawings:
 - 1. Areas under future paving and shoulders: Minimum density of ninety-five percent (95%) of maximum dry density.
 - 2. Other areas Minimum density of ninety percent (90%) of maximum dry density

3.6 TOLERANCES

- A Top of Compacted Surface: Plus or minus one-half inch ($\pm 1/2$ In) in cross section or in sixteen feet (16 Ft) longitudinally.

3.7 FIELD QUALITY CONTROL

- A. Testing shall be performed under provisions of Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures.
- B. Test and analysis of soil materials shall be performed in accordance with ASTM D4318, ASTM D2216 and ASTM D698.
- C. Compaction testing shall be performed in accordance with ASTM D698 or ASTM D2922 and ASTM D3017.
- D. A minimum of three (3) tests shall be taken for each one thousand linear feet (1000 Lf) per lane of roadway at random locations as specified by the the Project Manager.
- E. When tests indicate work does not meet specified compaction requirements, recondition, recompact and retest at no additional cost to the City.

3.8 PROTECTION

- A. Prevent erosion at all times. Maintain ditches and cut temporary swales to allow natural drainage in order to avoid damage to roadway. Do not allow water to pond.
- B. Distribute construction traffic evenly over compacted areas, where practical, to aid in obtaining uniform compaction. Protect exposed areas having high moisture content from wheel loads that cause rutting.
- C. Maintain excavation and embankment areas until start of subsequent work. Repair and recompact slides, washouts, settlements or areas with loss of density.

END OF SECTION

SECTION 02140

UTILITY BACKFILL MATERIALS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

A. Material Classifications

B. Utility Backfill Materials:

1. Concrete sand
2. Germ sand
3. Pea gravel
4. Crushed stone
5. Crushed concrete
6. Bank run sand
7. Select backfill
8. Random backfill

C. Material Handling and Quality Control Requirements

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices

1. No separate payment will be made for backfill material. Include payment in unit price for applicable utility installation.
2. Payment for backfill material, when included as separate pay item or when directed by the Project Manager, shall be on a cubic yard basis for material placed and compacted within theoretical trench width limits and thickness of material according to the Drawings or as directed by the Project Manager.

- 3 Payment for backfill of authorized over-excavation is in accordance with Section 02130 – Extra Unit Price Work for Excavation and Backfill
4. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum):

1. If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price.

13 DEFINITIONS

A Unsuitable Material:

- 1 Materials Classified as ML, CL-ML, MH, PT, OH and OL according to ASTM D2487
2. Materials that cannot be compacted to required density due to gradation, plasticity or moisture content
- 3 Materials containing large clods, aggregates or stones greater than four inches (4 in) in any dimension; debris, vegetation or waste, or any other deleterious materials.
- 4 Materials contaminated with hydrocarbons or other chemical contaminants

B Suitable Material:

- 1 Materials meeting specification requirements.
2. Unsuitable materials meeting specification requirements for suitable soils after treatment with lime or cement

C. Foundation Backfill Materials Natural soil or manufactured aggregate meeting Class I requirements and geotextile filter fabrics as required, to control drainage and material separation. Foundation backfill material shall be placed and compacted as backfill where needed to provide stable support for structure foundation base. Foundation backfill materials may include concrete fill and seal slabs as directed by the Project Manager.

D Foundation Base Crushed stone aggregate with filter fabric as required, cement-stabilized sand or concrete seal slab. Foundation

base provides smooth, level working surface for construction of concrete foundation

- E Backfill Material: Classified soil material meeting specified quality requirements for designated application as embedment or trench zone backfill.
- F Embedment Material. Soil material placed under controlled conditions within embedment zone extending vertically upward from top of foundation to an elevation twelve inches (12 in) above top of pipe and including pipe bedding, haunching and initial backfill
- G Trench Zone Backfill: Classified soil material meeting specified quality requirements and placed under controlled conditions in trench zone from top of embedment zone to base course in paved areas or to surface grading material in unpaved areas.
- H Foundation: Either suitable soil of trench bottom or material placed as backfill of over excavation for removal and replacement of unsuitable or otherwise unstable soils.
- I Source: Source selected by the Contractor for supply of embedment or trench zone backfill material. Selected source may be project excavation, off-site borrow pits, commercial borrow pits or sand and aggregate production or manufacturing plants, subject to approval by the Project Manager.
- J Refer to Section 02125 – Excavation and Backfill for Utilities for other definitions regarding utility installation by trench construction.

1.4 REFERENCES

- A. ASTM – American Society for Testing and Materials.

1. ASTM C33 – Standard Specification for Concrete Aggregate.
2. ASTM C40 – Standard Test Method for Organic Impurities in Fine Aggregates for Concrete.
3. ASTM C123 – Standard Test Method for Lightweight Particles in Aggregate
4. ASTM C131 – Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in Los Angeles Machine

5. ASTM C136 – Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates
6. ASTM C142 – Standard Test Method for Clay Lumps and Friable Particles in Aggregates.
7. ASTM D1140 – Standard Test Method for Amount of Material in Soils Finer Than No. 200 Sieve

8. ASTM D2487 – Standard Classification of Soils for Engineering Purposes (Unified Soil Classification System)

9. ASTM D4318 – Standard Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils.

10. ASTM D4643 – Standard Test Method for Determination of Water (Moisture) Content of Soil by Microwave Oven Method.

B. CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment

2. Section 01330 – Submittal Procedures

3. Section 01470 – Testing Laboratory Services

4. Section 01475 – Quality Control Testing Procedures

5. Section 02120 – Excavation and Backfill for Structures

6. Section 02125 – Excavation and Backfill for Utilities

7. Section 02130 – Extra Unit Price Work for Excavation and Backfill.

8. Section 02145 – Cement-Stabilized Sand

9. Section 02700 – Cement-Stabilized Base Course

10. Section 02705 – Crushed Concrete Base Course

11. Section 02715 – Hot-Mix Asphaltic Base Course

12. Section 02845 – Pavement Repair and Resurfacing

13. Section 03300 – Structural Concrete

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C. TxDOT – Texas Department of Transportation.

- 1 TxDOT Tex-110-E – Determining Particle Size Analysis of Soils
2. TxDOT Tex-460-A – Material Finer Than 75 Fm (No 200) Sieve In Mineral Aggregates (Decantation Test for Concrete Aggregates).

1.5 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.
- B. Submit description of source, material classification and product description, production method and application of backfill materials.
- C. Submit test results for samples of off-site backfill materials. Comply with Paragraph 2.3, Material Testing.
- D. Before stockpiling materials, submit copy of approval from landowner for stockpiling backfill material on a private property.
- E. Provide delivery ticket which includes source location for each delivery of material that is obtained from off-site sources or is being paid as a specific bid item.

1.6 TESTS

- A. Perform tests of sources for backfill material in accordance with Paragraph 2.3.B.
- B. Verification tests of backfill materials shall be performed by the City in accordance with Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures and in accordance with Paragraph 3.3.

1.7 EMBEDEMENT

- A. Gravity Sanitary Sewers and Storm sewers shall use Cement-Stabilized Sand for bedding, haunching and initial backfill
- B. Water lines and Force Main Sewers shall use Bank run sand for bedding, haunching and initial backfill.

PART II: PRODUCTS

2 1 MATERIAL CLASSIFICATIONS

A. Classify materials for backfill for purpose of quality control in accordance with Unified Soil Classification Symbols as defined in ASTM D2487. Material use and application is defined in utility installation specifications and the Drawings either by class, as described in Paragraph 2 1 B or by product descriptions, as given in Paragraph 2 2.

B. Class Designations Based on Laboratory Testing:

1 Class I: Well-graded gravels and sands, gravel-sand mixtures, crushed well-graded rock, little or no fines (GW, SW):

a Plasticity index: Non-plastic.

b Gradation: D_{60}/D_{10} - greater than four percent (4%), amount passing No. 200 sieve - less than or equal to five percent (5%).

2 Class II: Poorly graded gravels and sands, silty gravels and sands, little to moderate fines (GM, GP, SP, SM):

a Plasticity index: Non-plastic to four (4).

b Gradations:

1) Gradation (GP, SP): amount passing No. 200 sieve - less than five percent (5%).

2) Gradation (GM, SM): amount passing No. 200 sieve - between twelve percent (12%) and fifty percent (50%).

3) Borderline gradations with dual classifications (e.g., SP-SM): amount passing No. 200 sieve - between five percent (5%) and twelve percent (12%).

3 Class III: Clayey gravels and sands, poorly graded mixtures of gravel, sand, silt and clay (GC, SC and dual classifications, e.g., SP-SC):

- a. Plasticity index: Greater than seven (7)
- b. Gradation. Amount passing No. 200 sieve – between twelve percent (12%) and fifty percent (50%)

4 Class IVA: Lean clays (CL).

a. Plasticity Indexes:

- 1) Plasticity index. Greater than seven (7) and above A line
- 2) Borderline plasticity with dual classifications (CL-ML): PI between four (4) and seven (7)

b. Liquid limit: Less than fifty (50)

c. Gradation: Amount passing No. 200 sieve – greater than fifty percent (50%)

d. Inorganic

5. Class IVB: Fat clays (CH).

a. Plasticity index: Above A line.

b. Liquid limit: Fifty (50) or greater.

c. Gradation: Amount passing No. 200 sieve – greater than fifty percent (50%).

d. Inorganic

- 6. Use soils with dual class designation according to ASTM D2487 and which are not defined above, according to more restrictive class**

2.2 PRODUCT DESCRIPTIONS

- A.** Soils classified as silt (ML), silty clay (CL-ML with PI of four (4) to seven (7), elastic silt (MH), organic clay and organic silt (OL, OH) and organic matter (PT) are not acceptable as backfill materials. These soils may be used for site grading and restoration in unimproved areas as approved by the Project Manager. Soils in Class IVB, fat clay (CH) may be used as backfill materials where allowed by applicable backfill installation specification. Refer to Section 02120 – Excavation and

Backfill for Structures and Section 02125 – Excavation and Backfill for Utilities.

- B. Provide backfill material that is free of stones greater than six inches (6 in), free of roots, waste, debris, trash, organic material, unstable material, non-soil matter, hydrocarbon or other contamination, conforming to following limits for deleterious materials
1. Clay lumps: Less than one-half percent (1/2%) for Class I and less than two percent (2%) for Class II, when tested in accordance with ASTM C142.
 2. Lightweight pieces: Less than five percent (5%) when tested in accordance with ASTM C123.
 3. Organic impurities: No color darker than standard color when tested in accordance with ASTM C40.
- C. Manufactured materials, such as crushed concrete, may be substituted for natural soil or rock products where indicated in product specification and as approved by the Project Manager, provided that physical property criteria are determined to be satisfactory by testing.
- D. Bank Run Sand: Durable bank run sand classified as SP, SW or SM by Unified Soil Classification System (ASTM D2487) meeting following requirements:
1. Less than fifteen percent (15%) passing No. 200 sieve when tested in accordance with ASTM D1140. Amount of clay lumps or balls may not exceed two percent (2%).
 2. Material passing No. 40 sieve shall meet the following requirements when tested in accordance with ASTM D4318: Plasticity Index not exceeding seven (7)
- E. Concrete Sand: Natural sand, manufactured sand or combination of natural and manufactured sand conforming to requirements of ASTM C33 and graded within limits specified in Table 4.1 – SIEVE ANALYSIS REQUIREMENTS FOR CONCRETE SAND in this section, when tested in accordance with ASTM C136
- F. Gem Sand: Sand conforming to requirements of ASTM C33 for coarse aggregates specified for No. 8 size and graded within the limits specified in Table 4.2 – SIEVE ANALYSIS REQUIREMENTS FOR GEM SAND in this section, when tested in accordance with ASTM C136

- G. Pea Gravel: Durable particles composed of small, smooth, rounded stones or pebbles and graded within the limits specified in Table 4.3 – SIEVE ANALYSIS REQUIREMENTS FOR PEA GRAVEL in this section, when tested in accordance with ASTM C136.
- H. Crushed Aggregates: Crushed aggregates consist of durable particles obtained from an approved source and meeting the following requirements:
1. Materials of one (1) product delivered for same construction activity from single source unless otherwise approved by the Project Manager.
 2. Non-plastic fines.
 3. Los Angeles abrasion test wear not exceeding forty-five percent (45%) when tested in accordance with ASTM C131
 4. Crushed aggregate shall have minimum of ninety percent (90%) of particles retained on a No. 4 sieve with two (2) or more crushed faces as determined by Tex-460-A, Part I
 5. Crushed stone. Produced from oversize plant processed stone or gravel, sized by crushing to predominantly angular particles from naturally occurring single source. Uncrushed gravel is not acceptable materials for embedment where crushed stone is shown on applicable utility embedment drawing details
 6. Crushed Concrete. Crushed concrete is an acceptable substitute for crushed stone as utility backfill. Gradation and quality control test requirements are same as crushed stone. Provide crushed concrete produced from normal weight concrete of uniform quality, containing particles of aggregate and cement material, free from other substances such as asphalt, reinforcing steel fragments, soil, waste gypsum (calcium sulfate) or debris.
 7. Gradations, as determined in Table 4.4 – SIEVE ANALYSIS REQUIREMENTS FOR CRUSHED AGGREGATE in this section, in accordance with Tex-110-E
- I. Select Backfill: Class III clayey gravel or sand or Class IV lean clay with plasticity index between seven (7) and twenty (20) or clayey soils treated with lime in accordance with Section 02845 – Pavement Repair and Resurfacing, to meet plasticity criteria.

J Random Backfill: Any suitable soil or mixture of soils within Classes I, II, III and IV; or fat clay (CH) where allowed by applicable backfill installation specification. Refer to Section 02120 – Excavation and Backfill for Structures and Section 02125 – Excavation and Backfill for Utilities

K Cement-Stabilized Sand: Conform to requirements of Section 02145 – Cement-Stabilized Sand

L Concrete Backfill: Conform to Class A concrete as specified in Section 03300 – Structural Concrete

M Flexible Base Course Material: Conform to requirements of applicable portions of Section 02700 – Cement-Stabilized Base Course, Section 02705 – Crushed Concrete Base Course and Section 02715 – Hot-Mix Asphaltic Base Course

2.3 MATERIAL TESTING

A Source Qualification: Perform testing to obtain tests by suppliers for selection of material sources and products not from the project site. Test samples of processed materials from current production representing material to be delivered. Use tests to verify that materials meet specification requirements. Repeat qualification test procedures each time source characteristics change or there is planned change in source location or supplier. Include the following qualification tests, as applicable:

- 1 Gradation: Report complete sieve analyses regardless of specified control sieves from largest particle through No. 200 sieve.
- 2 Plasticity of material passing No. 40 sieve.
- 3 Los Angeles abrasion wear of material retained on a No. 4 sieve.
- 4 Clay lumps
- 5 Lightweight pieces.
- 6 Organic impurities

B Production Testing: Provide reports to the Project Manager from an independent testing laboratory that backfill materials to be placed in the

Work meet applicable specification requirements

- C Assist the Project Manager in obtaining material samples for verification testing at source or at production plant.

PART III: EXECUTION

3.1 SOURCES

- A Use of existing material in trench excavations is acceptable, provided applicable Technical Specification requirements are satisfied
- B Identify off-site sources for backfill materials at least fourteen days (14 D) ahead of intended use so that the Project Manager may obtain samples for verification testing
- C Materials may be subjected to inspection or additional verification testing after delivery. Materials which do not meet requirements of specifications shall be rejected. Do not use material which, after approval, has become unsuitable for use due to segregation, mixing with other materials or by contamination. Once material is approved by the Project Manager, expense for sampling and testing required to change to different material shall be arranged and paid for by the Contractor.
- D Bank run sand, select backfill and random backfill, if available in project excavation, may be obtained by selective excavation and acceptance testing. Obtain additional quantities of these materials and other materials required to complete work from off-site sources.
- E The City does not represent or guarantee that any soil found in excavation work will be suitable and acceptable as backfill material

3.2 MATERIAL HANDLING

- A When backfill material is obtained from either commercial or non-commercial borrow pit, open pit to expose vertical faces of various strata for identification and selection of approved material to be used. Excavate selected material by vertical cuts extending through exposed strata to achieve uniformity in product.
- B Establish temporary stockpile locations for practical material handling, control and verification testing by the Project Manager in advance of final placement. Obtain approval from landowner for storage of backfill material on adjacent private property

- C When stockpiling backfill material near project site, use appropriate covers to eliminate blowing of materials into adjacent areas and prevent runoff containing sediments from entering drainage system
- D. Place stockpiles in layers to avoid segregation of processed materials
Load material by making successive vertical cuts through entire depth of stockpile

3.3 FIELD QUALITY CONTROL

A Quality Control

1. The Project Manager may sample and test backfill at:
 - a. Sources including borrow pits, production plants and Contractors designated off-site stockpiles.
 - b. On-site stockpiles.
 - c. Materials placed in the Work
2. The Project Manager may re-sample material at any stage of work or location if changes in characteristics are apparent

- B. **Production Verification Testing:** A Certified testing laboratory, as described in Section 01470 – Testing Laboratory Services, will provide verification testing on backfill materials, as directed by the Project Manager. Samples may be taken at source or at production plant, as applicable.

PART IV: TABLES

4.1 SIEVE ANALYSIS REQUIREMENTS FOR CONCRETE SAND

Sieve	Percent Passing
3/8"	100%
No 4	95% to 100%
No 8	80% to 100%
No 16	50% to 85%
No 30	25% to 60%
No 50	10% to 30%
No 100	2% to 10%

4.2 SIEVE ANALYSIS REQUIREMENTS FOR GEM SAND

Sieve	Percent Passing
3/8"	95% to 100%
No. 4	60% to 80%
No. 8	15% to 40%

4.3 SIEVE ANALYSIS REQUIREMENTS FOR PEA GRAVEL

Sieve	Percent Passing
1/2"	100%
3/8"	85% to 100%
No. 4	10% to 30%
No. 8	0% to 10%
No. 16	0% to 5%

4.4 SIEVE ANALYSIS REQUIREMENTS FOR CRUSHED AGGREGATES

Sieve	Percent Passing by Weight for Pipe Embedment by Ranges of Nominal Pipe Sizes		
	>15"	15" to 8"	<8"
1"	95% to 100%	100%	--
3/4"	60% to 90%	90% to 100%	100%
1/2"	25% to 60%	--	90% to 100%
3/8"	--	20% to 55%	40% to 70%
No. 4	0% to 5%	0% to 10%	0% to 15%
No. 8	--	0% to 5%	0% to 5%

END OF SECTION

SECTION 02145

CEMENT-STABILIZED SAND

PART I GENERAL

1.1 GENERAL REQUIREMENTS

A Cement-stabilized sand

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices

1. No separate payment will be made for work performed under this Section. Include cost of such work in Contract unit prices for items listed in Unit Price Form requiring cement-stabilized sand.
2. Refer to Section 01270 - Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum)

1. If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price.

1.3 REFERENCES

A. ASTM - American Society for Testing and Materials.

1. ASTM C33 - Standard Specification for Concrete Aggregates (Fine Aggregate)
2. ASTM C40 - Standard Test Method for Organic Impurities in Fine Aggregates for Concrete
3. ASTM C42 - Standard Test Methods for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
4. ASTM C94 - Standard Specification for Ready-Mixed Concrete.
5. ASTM C123 - Standard Test Method for Lightweight Particles

in Aggregate.

6 ASTM C142 – Standard Test Method for Clay Lumps and Friable Particles in Aggregates

7 ASTM C150 – Specification for Portland Cement.

8 ASTM D558 – Standard Test Method for Moisture-Density Relations of Soil Cement-Mixtures.

9 ASTM D1632 – Standard Practice for Making and Curing Soil-Cement Compression and Flexure Test Specimens in the Laboratory.

10 ASTM D1639 – Standard Test Method for Compressive Strength of Molded Soil-Cement Cylinders.

11 ASTM D2487 – Standard Test Method for Classification of Soils for Engineering Purposes (Unified Soil Classification System).

12 ASTM D2922 – Standard Test Methods for Density of Soil and Soil Aggregate in Place by Nuclear Methods (Shallow Depth).

13 ASTM D3665 – Standard Practice for Random Sampling of Construction Materials.

14 ASTM D4318 – Standard Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils

B CFTS – City of Friendswood Technical Specifications.

1 Section 01270 – Measurement and Payment

2 Section 01330 – Submittal Procedures.

3 Section 01470 – Testing Laboratory Services

4 Section 01475 – Quality Control Testing Procedures

5 Section 02140 – Utility Backfill Materials

1.4 SUBMITTALS

A Conform to requirements of Section 01330 – Submittal Procedures

B. Submit proposed target cement content and production data for sand-

02145-2

cement mixture in accordance with requirements of Paragraph 2.3, Materials Qualifications.

1.5 DESIGN REQUIREMENTS

A. Use sand-cement mixture producing minimum unconfined compressive strength of one hundred (100 psi) in forty-eight hours (48 Hrs)

1. Design will be based on strength specimens molded in accordance with ASTM D558 at moisture content within three percent (3%) above or below optimum moisture content and within four hours (4 Hrs) of batching
2. Determine minimum cement content from production data and statistical history. Provide no less than one and one tenth (1 1/10) sacks of cement per ton of dry sand

PART II: PRODUCTS

2.1 MATERIALS

- A. Cement: Type I Portland cement conforming to ASTM C150
- B. Sand: Clean, durable sand meeting grading requirements for fine aggregates of ASTM C33 or requirements for bank run sand of Section 02140 – Utility Backfill Materials and the following requirements:
 1. Classified as SW, SP, SW-SM, SP-SM or SM by Unified Soil Classification System of ASTM D2487.
 2. Detrimental materials:

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 - a. Clay lumps, ASTM C142 – less than one-half percent (1/2%)
 - b. Lightweight pieces, ASTM C123; less than five percent (5%)
 - c. Organic impurities, ASTM C40, color no darker than standard color
 3. Plasticity index of four (4) or less when tested in accordance with ASTM D4318.

C. Water: Potable water, free of oils, acids, alkalies, organic matter or

other deleterious substances, meeting requirements of ASTM C94.

2.2 MIXING MATERIALS

- A Add required amount of water and mix thoroughly in pugmill-type mixer
- B Stamp batch ticket at plant with time of loading. Reject material not placed and compacted within four hours (4 Hrs) after mixing.

2.3 MATERIAL QUALIFICATION

- A. Determine target cement content of material as follows:

1. Obtain samples of sand-cement mixtures at production facility representing range of cement content consisting of at least three (3) points
2. Complete molding of samples within four hours (4 Hrs) after addition of water.
3. Perform strength tests [average of two (2) specimens] at forty-eight hours (48 Hrs) and seven days (7 D)
4. Perform cement content tests on each sample.
5. Perform moisture content tests on each sample.
6. Plot average forty-eight hour (48 Hr) strength vs cement content.
7. Record scale calibration date, sample date, sample time, molding time, cement feed dial settings and silo pressure (if applicable).

- B. Test raw sand for following properties at point of entry into pug-mill.

1. Gradation.
2. Plasticity Index
3. Organic impurities.
4. Clay lumps and friable particles
5. Lightweight pieces.

6 Moisture content

7 Classification

- C Present data obtained in format similar to that provided in sample data form attached to this Section

PART III EXECUTION

3.1 PLACING

- A Place sand-cement mixture in maximum twelve inch (12 in) thick loose lifts and compact to ninety-five percent (95%) of maximum density as determined in accordance with ASTM D558, unless otherwise specified. Refer to related specifications for thickness of lifts in other applications. Target moisture content during compaction is plus or minus three percent ($\pm 3\%$) of optimum moisture content. Perform and complete compaction of sand-cement mixture within four hours (4 Hrs) after addition of water to mix at plant.
- B Do not place or compact sand-cement mixture in standing or free water.

3.2 FIELD QUALITY CONTROL

- A Testing shall be performed under provisions of Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures.
- B One (1) sample of cement-stabilized sand shall be obtained for each one hundred fifty tons (150 Tn) of material placed per day with no less than one (1) sample per day of production. Random samples of delivered cement-stabilized sand shall be taken in the field at point of delivery in accordance with ASTM D3665. Obtain three (3) individual samples of approximately twelve pounds (12 Lbs) to fifteen pounds (15 Lbs.) each from the first (1st), middle and last third (3rd) of the truck and composite them into one sample for test purpose.
- C Prepare and mold four (4) specimens (for each sample obtained) in accordance with ASTM D558, Method A, without adjusting moisture content. Samples shall be molded at approximately same time material is being used, but no later than four hours (4 Hrs) after water is added to mix.
- D After molding, specimens shall be removed from molds and cured in accordance with ASTM D1632.

- E Specimens shall be tested for compressive strength in accordance with ASTM D1633, Method A. Two (2) specimens shall be tested at forty-eight hours (48 Hrs) plus or minus two hours (± 2 Hrs) and two (2) specimens shall be tested at seven days (7 D) plus or minus four hours (± 4 Hrs).
- F A strength test shall be the average of strengths of two (2) specimens molded from the same sample of material and tested at the same age. The average daily strength shall be the average of strengths of all specimens molded during one day's (1 D) production and tested at same the age.
- G Precision and Bias. Test results shall meet recommended guideline for precision in ASTM D1633 Section 9.
- H Reporting. Test reports shall contain, as a minimum, as specified in TABLE 4.1 – CEMENT-STABILIZED SAND REPORT in this section, the following information:
- 1 Supplier and plant number
 - 2 Time material was batched
 - 3 Time material was sampled
 - 4 Test age (exact hours)
 - 5 Average forty-eight hour (48 Hr) strength
 - 6 Average seven day (7 D) strength
 - 7 Technical Specification section number.
 - 8 Indication of compliance / non-compliance
 - 9 Mixture identification.
 - 10 Truck and ticket numbers.
 - 11 The time of molding
 - 12 Moisture content at time of molding
 - 13 Required strength

- 14 Test method designations
- 15 Compressive strength data as required by ASTM D1633
- 16 Supplier mixture identification
- 17 Specimen diameter and height, in
- 18 Specimen cross-sectional area, sq in

3.3 ACCEPTANCE

A Strength level of material shall be considered satisfactory if

- 1 The average forty-eight hour (48 Hr) strength is greater than one hundred pounds per square inch (100 psi) with no individual strength test below seventy pounds per square inch (70 psi)
- 2 All seven day (7 D) individual strength tests [average of two (2) specimens] are greater than or equal to one hundred pounds per square inch (100 psi)

B The material shall be considered unacceptable and subject to removal and replacement at the Contractor's expense when individual strength test [average of two (2) specimens] has seven day (7 D) strength] less than one hundred pounds per square inch (100 psi)

C When the moving average of three (3) daily forty-eight hour (48 Hr) averages falls below one hundred pounds per square inch (100 psi), discontinue shipment to project until plant is capable of producing material which exceeds one hundred pounds per square inch (100 psi) at forty hours (48 Hrs) Five (5) – forty eight hour (48 Hr) strength tests shall be made in this determination with no individual strength tests less than one hundred one hundred pounds per square inch (100 psi)

D The Testing laboratory shall notify the Contractor, the Project Manager and the material supplier of tests by facsimile indicating results falling below specified strength requirements within twenty-four hours (24 Hrs)

E If any strength test of laboratory cured specimens falls below the specified strength, the Contractor may, at his own expense, request testing of cores drilled from the area(s) in question in accordance with ASTM C42 In such cases, three (3) cores shall be taken for each strength test that falls below the values given in paragraph 3.3 A

**CITY OF FRIENDSWOOD
TECHNICAL SPECIFICATIONS**

**CEMENT-
STABILIZED SAND**

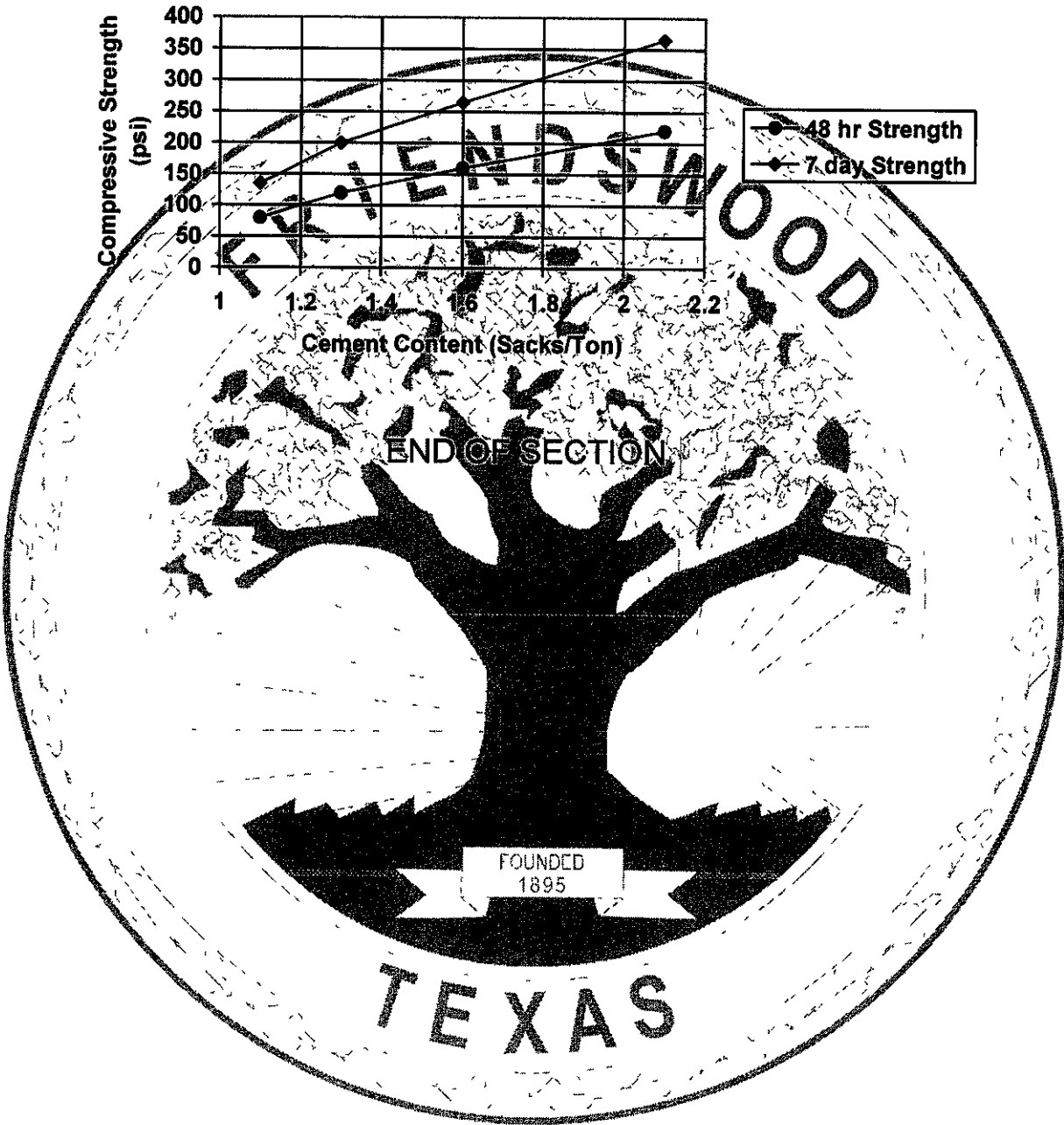
- F Cement-stabilized sand in an area represented by core tests shall be considered satisfactory if the average of three (3) cores is equal to at least one hundred pounds per square inch (100 psi). Additional testing of cores extracted from locations represented by erratic core strength results shall be permitted.

PART IV TABLES

4.1 CEMENT-STABILIZED SAND REPORT

Supplier: Stabilized Sand Co.		Plant No.: 3 - Friendswood		Date of Tests: June 3, 2005		
Item	Raw Sand	1.1 Sack	100 psi	1.5 Sack	2.0 Sack	
Moisture Content	10.9	15.7	14.0	13.8	13.7	
Cement Feed Dial Setting	-	2.25	2.5	2.75	3.75	
Silo Pressure (psi)	-	4	4	4	4	
Batch Time	10:00	10:10	10:15	10:20	10:25	
Sample Time	-	10:10	10:15	10:20	10:25	
Molding Time	-	12:30	12:45	1:00	1:15	
Cement Content (sacks/ton)	-	1.1	1.3	1.6	2.1	
Compressive Strength at 48 hrs (avg of 2)	-	80	120	160	220	
Compressive Strength at 7 days (avg of 2)	-	135	200	265	365	
Sieve Size	Percent Passing		COF Spec Section 02140			
3/8 Inch	100%		100%			
No 200	30%		30%			
Raw Sand Tests	Result		City of Friendswood			
Plasticity Index	Non-Plastic		4 Maximum			
Organic Impurities	Passing		No Darker Than			
Clay Lumps & Friable Parts (%)	0.0		0.5 % Maximum			
Lightweight Pieces (%)	0.0		5.0 % Maximum			
Classification	SP - SM		SW, SP, SW-SM, SP-SM, SM			

Compressive Strength vs Cement
Content



SECTION 02240

REINFORCED CONCRETE BOXES (RCB)

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Precast reinforced concrete box sewers

1.2 MEASUREMENT AND PAYMENT

- A Unit Prices

- 1 No separate payment will be made for precast reinforced concrete box sewer under this Section. Include payment in the unit price for Section 02600 – Storm Sewers.
- 2 Refer to Section 01270 – Measurement and Payment for unit price procedures.

- B Stipulated Price (Lump Sum)

- 1 If Contract is Stipulated Price Contract, payment for work in this section is included in Total Stipulated Price.

1.3 REFERENCES

- A ASTM – American Society for Testing and Materials.

- 1 ASTM C1433 – Standard Specification for Precast Reinforced Concrete Box Sections for Culverts, Storm Drains and Sewers

- B CFTS – City of Friendswood Technical Specifications

- 1 Section 01270 – Measurement and Payment
- 2 Section 01330 – Submittal Procedures
- 3 Section 02125 – Excavation and Backfill for Utilities
- 4 Section 02600 – Storm Sewers
- 5 Section 03300 – Structural Concrete

1.4 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures
- B. Submit shop drawings and data on box sections, fittings, gaskets and appurtenances for approval. Indicate conformance to reference standards

1.5 QUALITY ASSURANCE

- A Provide manufacturer's affidavits that pipe was manufactured in compliance with standards referenced in this Section.

PART II: PRODUCTS

2.1 PRECAST REINFORCED CONCRETE BOX SEWERS

- A Conform to ASTM C1433, as indicated on the Drawings.
- B Pipe and boxes shall be machine-made or cast by process which shall provide for uniform placement of concrete in forms and compaction by mechanical devices to produce dense, structurally sound concrete

2.2 CONCRETE

- A Conform to requirements of Section 03300 – Structural Concrete
- B Use concrete mixed in central batch plant or other batching facility from which quality and uniformity of concrete can be assured. Transit-mixed concrete is not acceptable.

2.3 SOURCE QUALITY CONTROL

- A The Project Manager shall inspect manufacturer's plant and casting operations as deemed necessary.

PART III. EXECUTION

3.1 BEDDING

- A Bed box sections on foundation of firm and stable material accurately shaped to conform to their bases. Install bedding as specified in Section 02125 – Excavation and Backfill for Utilities. When required by the Drawings, use special bedding material. When single-cell box sections are placed in parallel for multi-cell installation, place in

conformance with details shown on the Drawings

3.2 PLACEMENT

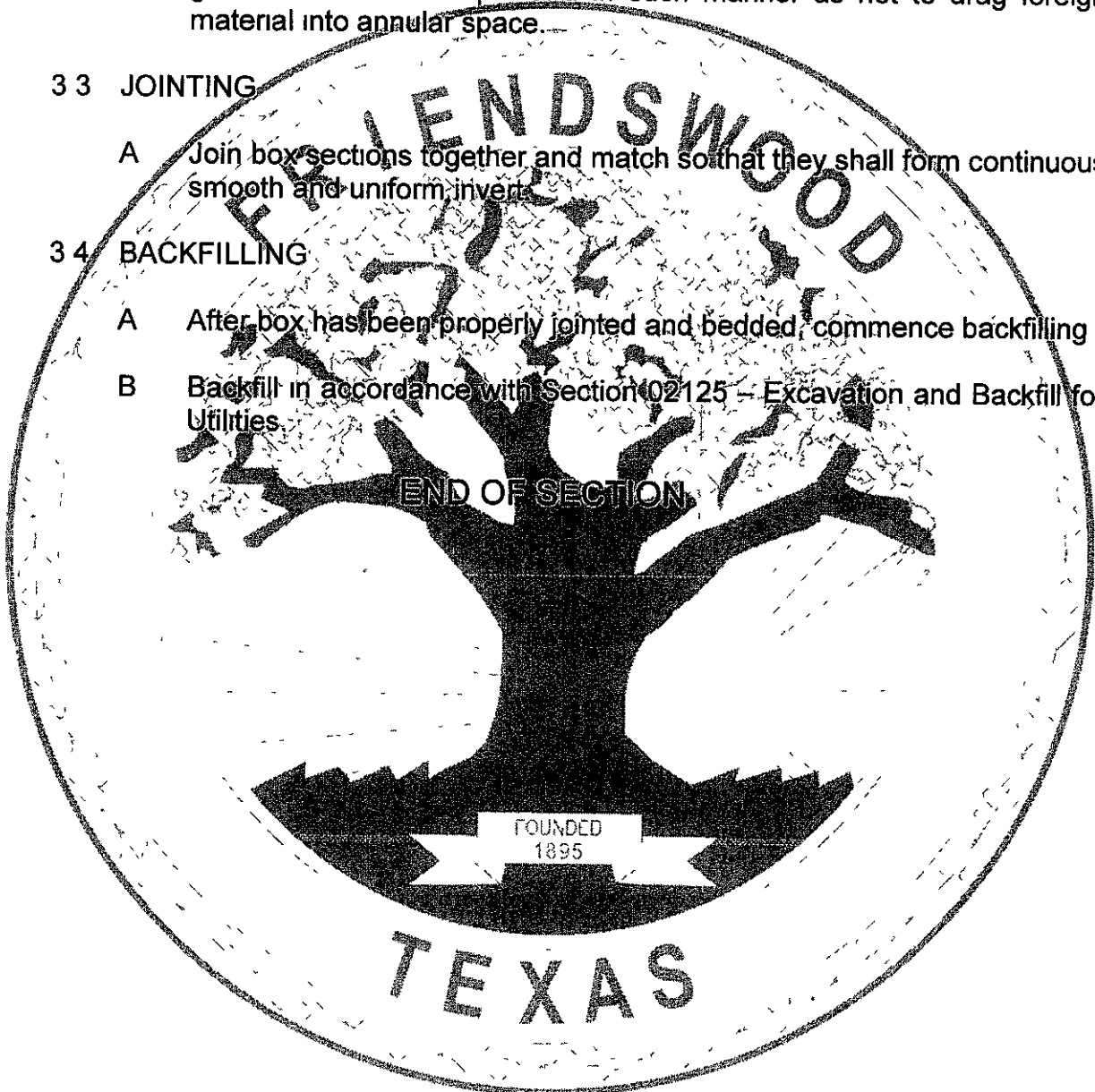
- A. Carefully lower box sections to bottom of trench and lay accurately in line and grade, with spigot or tongue end downstream entering bell or groove end to full depth and in such manner as not to drag foreign material into annular space.

3.3 JOINTING

- A. Join box sections together and match so that they shall form continuous smooth and uniform invert.

3.4 BACKFILLING

- A. After box has been properly jointed and bedded, commence backfilling
- B. Backfill in accordance with Section 02125 – Excavation and Backfill for Utilities.



SECTION 02245

REINFORCED CONCRETE PIPE (RCP)

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Reinforced concrete pipe for sanitary sewers and storm sewers

1.2 MEASUREMENT AND PAYMENT

A Unit Prices:

- 1 No separate payment will be made for reinforced concrete pipe under this Section. Include cost in unit price work as specified in following Sections:

a Section 02500 – Gravity Sanitary Sewers

b Section 02600 – Storm Sewers

- 2 Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum):

- 1 If Contract is Stipulated Price Contract, payment for work in this section is included in Total Stipulated Price.

1.3 REFERENCES

A ASTM – American Society for Testing and Materials

1. ASTM C76 – Standard Specification for Reinforced Concrete Culvert, Storm Drain and Sewer Pipe
2. ASTM C443 – Standard Specification for Joints for Circular Concrete Sewer and Culvert Pipe Using Rubber Gaskets
3. ASTM C497 – Standard Test Method for Concrete Pipe, Manhole Sections or Tile
4. ASTM C506 – Standard Specification for Reinforced Concrete

Arch Culvert, Storm Drain and Sewer Pipe

- 5 ASTM C655 – Standard Specification for Reinforced Concrete D-load Culvert, Storm Drain and Sewer Pipe
- 6 ASTM C877 – Standard Specification for External Sealing Bands for Noncircular Concrete Sewer, Storm Drain and Culvert Pipe

B CFTS – City of Friendswood Technical Specifications

- 1 Section 01270 – Measurement and Payment
- 2 Section 01330 – Submittal Procedures
- 3 Section 02125 – Excavation and Backfill for Utilities
- 4 Section 02500 – Gravity Sanitary Sewers
- 5 Section 02600 – Storm Sewers
- 6 Section 03105 – Grout

1 4 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures
- B Submit complete product data for pipe, fittings and gaskets for approval. Indicate conformance to appropriate reference standards
- C Submit manufacturer's certificate that concrete pipes meet applicable standards
- D For jacking pipe, submit drawings and data describing grouting port design and closure procedures when required by Section 03105 – Grout, including liner repair, as applicable

1 5 QUALITY ASSURANCE

- A Provide manufacturer's affidavits that pipe was manufactured in compliance with standards referenced in this Section

PART II PRODUCTS

2.1 REINFORCED CONCRETE PIPE

- A Conform circular reinforced concrete pipe to requirements of ASTM C76, for Class III wall "B" thickness. Conform to rubber gasket joints for sanitary sewers and storm sewers and tongue and groove for roadside ditch culverts to ASTM C443.
- B Conform reinforced concrete arch pipe to requirements of ASTM C506 for Class A-III. Joints shall conform to ASTM C877.
- C Reinforced concrete elliptical pipe, either vertical or horizontal, shall conform to requirements of ASTM C507 for Class VE-III for vertical or Class HE-III for horizontal. Use rubber gasket joints conforming to ASTM C877.
- D Conform reinforced concrete D-load pipe requirements of ASTM C655.

2.2 GASKETS

- A When no contaminant is identified, furnish rubber gasket conforming to ASTM C443 for circular reinforced concrete pipe and rubber gasket conforming to ASTM C877 for reinforced concrete elliptical pipe.
- B Pipes allowed to be installed in potentially contaminated areas, where free product is found near elevation of proposed sewer, shall have gasket materials for noted contaminant as specified in TABLE 4.1 – GASKET MATERIAL REQUIRED FOR CONTAMINANTS in this Section.

2.3 LINERS FOR SANITARY SEWER PIPE

- A Reinforced concrete pipe for sanitary sewers shall be PVC lined.
- B Reinforced concrete pipes to be installed in potentially contaminated areas shall have liners recommended by manufacturer as resistant to contaminants identified in Phase II Environmental Site Assessment Report.

2.4 SOURCE QUALITY CONTROL

- A The Project Manager shall inspect manufacturer's plant and casting operations as deemed necessary.

PART III EXECUTION

3.1 BEDDING

- A Bed pipe sections on foundation of firm and stable material accurately shaped to conform to their bases. Install bedding as specified in Section 02125 – Excavation and Backfill for Utilities. When required by the Drawings, use special bedding material. When single-cell pipe sections are placed in parallel for multi-cell installation, place in conformance with details shown on the Drawings.

3.2 PLACEMENT

- A Carefully lower pipe sections to bottom of trench and lay accurately in line and grade, with spigot or tongue end downstream entering bell or groove end to full depth and in such manner as not to drag foreign material into annular space.

3.3 JOINTING

- A Join pipe sections together and match so that they shall form continuous smooth and uniform invert.

3.4 BACKFILLING

- A After pipe has been properly jointed and bedded, commence backfilling.
- B Backfill in accordance with Section 02125 – Excavation and Backfill for Utilities.

PART IV TABLES

4.1 GASKET MATERIAL REQUIRED FOR CONTAMINANTS

CONTAMINANT	GASKET MATERIAL REQUIRED
Petroleum (diesel, gasoline)	Nitrile Rubber
Other Contaminants	As recommended by pipe manufacturer

END OF SECTION

SECTION 02280

TRENCH SAFETY SYSTEMS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Trench safety system for the construction of trench excavations
- B. Trench safety system for structural excavations which fall under provisions of State and Federal trench safety laws.

1.2 MEASUREMENT AND PAYMENT

A. UNIT PRICES

1. Measurement for trench safety systems used on trench excavations is on a linear foot basis, measured along the centerline of the trench, including manholes and other line structures.
2. No payment will be made for trench safety systems for structural excavations under this section. Include payment for trench safety system in applicable structure installation sections.
3. Refer to Section 01270 - Measurement and payment for unit price procedures.

B. Stipulated Price (Lump Sum)

1. If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price.

1.3 DEFINITIONS

- A A trench shall be defined as a narrow excavation (in relation to its depth) made below the surface of the ground at a minimum of five feet (5 Ft) in depth. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than fifteen feet (15 Ft)
- B The trench safety system requirements shall apply to larger open excavations if the erection of structures or other installations limits the

space between the excavation slope and these installations to dimensions equivalent of a trench as defined

- C Trench Safety Systems include, but are not limited to, sloping, sheeting, trench boxes or trench shields, sheet piling, cribbing, bracing, shoring, dewatering or diversion of water to provide adequate drainage.

1.4 SUBMITTALS

- A Submittals shall conform to requirements of Section 01330 - Submittal Procedures
- B Submit a safety program specifically for the construction of trench excavation. Design the trench safety program to be in accordance with OSHA 29CFR standards governing the presence and activities of individuals working in and around trench excavations.
- C Construction and shop drawings containing deviations from OSHA standards on special designs shall be sealed by a Professional Engineer licensed by the State of Texas retained and paid by the Contractor.
- D Review of the Contractor's safety program by the Project Manager shall only be in regard to compliance with this specification and shall not constitute approval by the Project Manager nor relieve the Contractor of obligations under State and Federal trench safety laws.

1.5 REGULATORY REQUIREMENTS

- A Install and maintain trench safety systems in accordance with the detail the Specifications set out in the provision of Excavations, Trenching, and Shoring, Federal Occupation Safety and Health Administration (OSHA) Standards, 29CFR, Part 1926, Subpart P, as amended, including Final Rule, published in the Federal Register Vol. 54, No. 209 on Tuesday, October 31, 1989. The sections that are incorporated into these specifications by reference include Sections 1926.650 through 1926.652
- B A reproduction of the OSHA standards included in "Subpart P - Excavations" from the Federal Register Vol 54, No 209 is available upon request to the Contractors bidding on City projects. The City assumes no responsibility for the accuracy of the reproduction. The Contractor is responsible for obtaining a copy of this section of the Federal Register
- C Legislation that has been enacted by the Texas Legislature with regard to Trench Safety Systems, is hereby incorporated, by reference, into

these specifications Refer to Texas Health and Safety Code Ann , §756 022 (Vernon 1991).

- D Reference materials, if developed for a specific project, shall be issued with the Bid Documents, including the following.
- 1 Section 00200 - Geotechnical Information information obtained for use in design of the trench safety system

1.6 INDEMNIFICATION

- A The Contractor shall indemnify and hold harmless the City, its employees and agents, from any and all damages, costs (including, without limitation, legal fees, court costs, and the cost of investigation), judgments or claims by anyone for injury or death of persons resulting from the collapse or failure of trenches constructed under this Contract.
- B. The Contractor acknowledges and agrees that this indemnity provision provides indemnity for the City in case the City is negligent either by act or omission in providing for trench safety, including, but not limited to safety program and design reviews, inspections, failures to issue stop work orders, and the hiring of the Contractor

1.7 REFERENCED STANDARDS

- A. CFCO – City of Friendswood Code of Ordinances.
- 1 - Ordinance 70-114 – Trench Excavation Safety Compliance.
 2. Ordinance 70-147 – Violation of Conditions; Revocation, Repair by the City.
 - 3 Ordinance 70-148 – Surety Bond Required
- B CFTS – City of Friendswood Technical Specifications.
- 1 Section 00200 – Geotechnical Information.
 2. Section 01270 – Measurement and Payment.
 3. Section 01330 – Submittal Procedures
- C OSHA – Occupational Safety and Health Administration
- 1 OSHA Standards, 29CFR, Part 1926, Subpart P

2. Federal Register Vol 54, No. 209

D Texas Health and Safety Code Ann , §756 022 (Vernon 1991)

PART II. PRODUCTS – Not Used

PART III. EXECUTION

3 1 INSTALLATION

- A. Install and maintain trench safety systems in accordance with provisions of OSHA 29CFR
- B. Install specially designed trench safety systems in accordance with the Contractor's trench excavation safety program for the locations and conditions identified in the program
- C. A competent person, as identified in the Contractor's Trench Safety Program, shall verify that trench boxes and other premanufactured systems are certified for the actual installation conditions.

3 2 INSPECTION

- A. The Contractor, or the Contractor's independently retained consultant, shall make daily inspections of the trench safety systems to ensure that the installed systems and operations meet OSHA 29CFR and other personnel protection regulations requirements.
- B. If evidence of possible cave-ins or slides is apparent, the Contractor shall immediately stop work in the trench and move personnel to safe locations until the necessary precautions have been taken by the Contractor to safeguard personnel entering the trench.
- C. Maintain a permanent record of daily inspections

3 3 FIELD QUALITY CONTROL

- A. The Contractor shall verify specific applicability of the selected or specially designed trench safety systems to each field condition encountered on the project
- B. The Project Manager, under written or oral authority of the Director or Deputy Director of Community Development shall stop work on portions of the Work where conditions, equipment or personnel put other personnel, the general public or adjacent property in danger of injury or damage. Work shall not resume until conditions have been remedied

and verified by the Project Manager

END OF SECTION

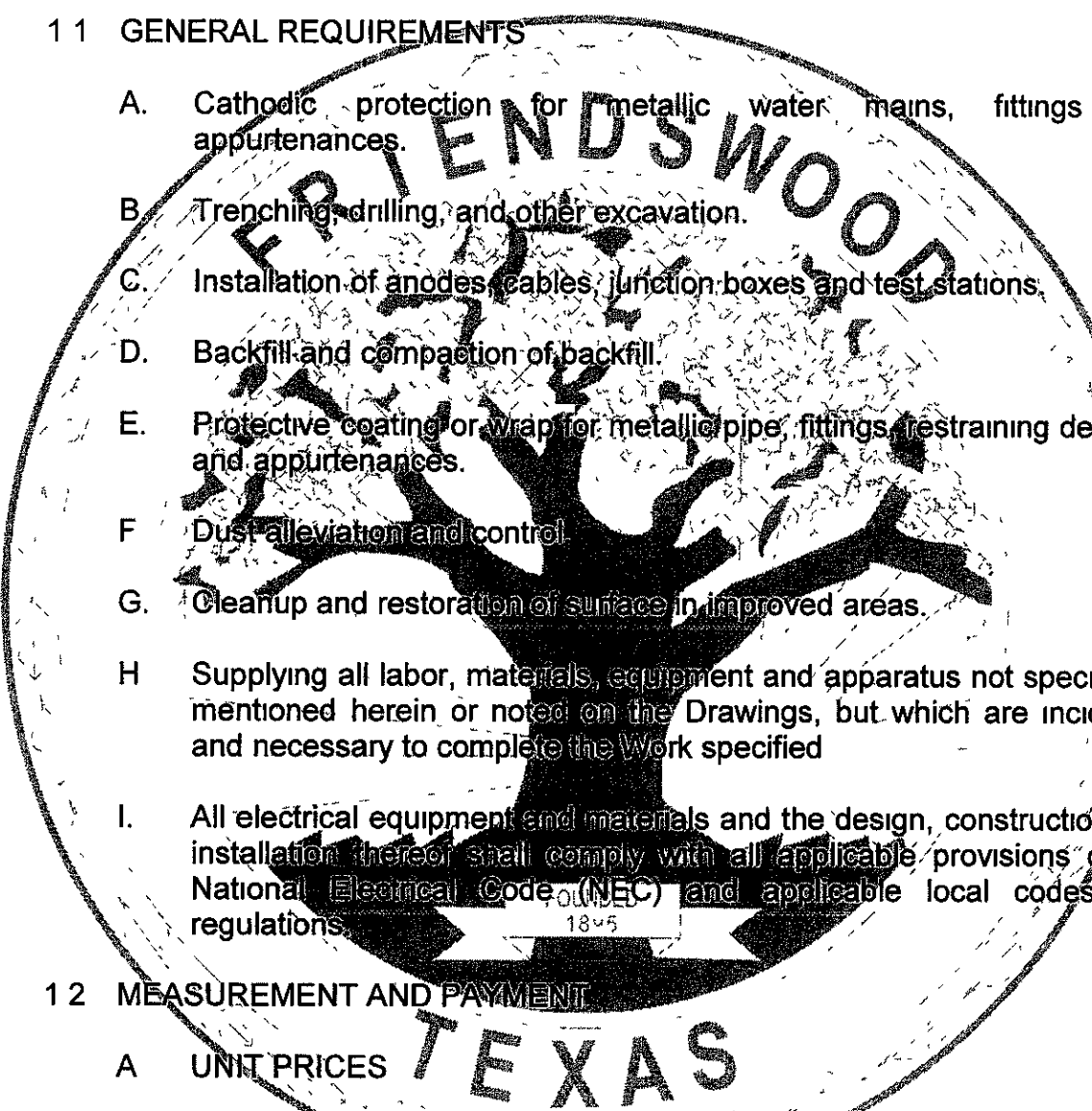


SECTION 02285

CATHODIC PROTECTION

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- 
- A. Cathodic protection for metallic water mains, fittings and appurtenances.
 - B. Trenching, drilling, and other excavation.
 - C. Installation of anodes, cables, junction boxes and test stations.
 - D. Backfill and compaction of backfill.
 - E. Protective coating or wrap for metallic pipe, fittings, restraining devices, and appurtenances.
 - F. Dust alleviation and control.
 - G. Cleanup and restoration of surface in improved areas.
 - H. Supplying all labor, materials, equipment and apparatus not specifically mentioned herein or noted on the Drawings, but which are incidental and necessary to complete the Work specified.
 - I. All electrical equipment and materials and the design, construction and installation thereof shall comply with all applicable provisions of the National Electrical Code (NEC) and applicable local codes and regulations.

1.2 MEASUREMENT AND PAYMENT

A UNIT PRICES

- 1 Measurement for cathodic protection used is on a linear foot basis measured along the centerline of the pipe
- 2 Refer to Section 01270 – Measurement and payment for unit price procedures

B Stipulated Price (Lump Sum)

- 1 If Contract is Stipulated Price Contract, payment for work in this

02285-1

Section is included in Total Stipulated Price.

1 3 REFERENCES

A AASHTO – American Association of State Highway and Transportation Officials

1. H20 – Specification for Highway Bridges

B ASTM – American Society for Testing and Materials.

1 B3 – Standard Specification for Soft or Annealed Copper Wire

2 B8 – Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft

3 B418 – Standard Specification for Cast and Wrought Galvanic Zinc Anodes

4 C94 – Standard Specification for Ready-Mixed Concrete

5 D1248 – Standard Specification for Polyethylene Plastics Extrusion Materials for Wire and Cable

6 D2220 – Standard Specification for Polyvinyl Chloride (PVC) Insulation for Cable and Wire

C AWWA – American Water Works Association

1. C213 – Fusion Bonded Epoxy Coating for the Interior and Exterior of Steel Water Pipelines.

2 C550 – Protective Epoxy Interior Coatings for Valves and Hydrants.

D CFTS – City of Friendswood Technical Specifications

1 Section 01270 – Measurement and payment for unit price procedures

2 Section 01330 – Submittal procedures.

3 Section 02125 – Excavation and Backfill for Utilities

E IEEE – Institute of Electrical and Electronic Engineers

F IPCEA – Insulated Power Cable Engineers Association

G. NACE – National Association of Corrosion Engineers

- 1 RP0169 – Recommended Practice, Control of External Corrosion on Underground or Submerged Metallic Piping Systems
- 2 RP0286 – Electrical Insulation of Cathodically Protected Pipelines.
- 3 RP0375 – Wax Coating Systems for Underground Piping Systems
- 4 TM0497 – Measurement Techniques Related to Criteria for Cathodic Protection on Underground or Submerged Metallic Piping System

H NEMA – National Electrical Manufacturers Association

I OSHA – Occupational Safety and Health Administration.

1.4 SUBMITTALS

- A** Conform to requirements of Section 01330 – Submittal Procedures.
- B** Submit shop drawings and certification signed and sealed by a Professional Engineer registered in the State of Texas.
- C** A complete list of cathodic protection equipment and material, including name and manufacturer, catalog number, size, finish and any other pertinent data necessary for proper identification and to establish conformance with these Technical Specifications.
- D** The submitted data shall be marked with a clear indication of the Contractor's choice of the specific item or items, or class of items proposed, in order to establish written record of the Contractor's intent. A list of items indicating "as specified" shall not suffice.

1.5 QUALITY ASSURANCE

- A.** Cathodic protection components shall be new, of the highest quality, and standard products from a manufacturer regularly engaged in the production of such material or equipment. Bring all cathodic protection materials to the job site in original sealed containers. Cathodic protection components shall be subject to testing to ensure proper installation and operation. The Contractor shall correct all deficiencies and perform any required re-testing.

- B. Brands or trade names are mentioned in these Technical Specifications to set standards of quality; use no substitute materials unless approved by the Project Manager in writing. Approval of substitute materials does not relieve the Contractor of responsibility for providing a workable and functioning system as designed.

PART II: PRODUCTS

2.1 ZINC GALVANIC ANODES

- A. Galvanic anodes shall be zinc anodes having a Type II chemical composition conforming to the requirements of ASTM B418. Bare anode weight shall be as indicated on the Project Detail Sheets.
- B. Anodes shall be cast with a galvanized steel core strap. One (1) end of the anode shall be recessed to provide access to the rod for connection of the lead wire. The lead wire shall be silver brazed to the rod, making a mechanically secure connection. The connection shall be insulated to a six hundred volt (600 V) rating by filling the recess with asphalt. The asphalt material shall be extended over the lead wire insulation by not less than one-half inch (1/2 in). The Contractor shall repair all damaged lead wire insulation as directed.
- C. The entire soldered connection and core shall be sealed with epoxy. The zinc anode shall be prepackaged in a cloth bag containing a low resistivity backfill consisting of seventy-five percent (75%) hydrated gypsum, twenty percent (20%) bentonite and five percent (5%) sodium sulfate.

2.2 WIRE

- A. Wires utilized for test stations shall be solid single conductor copper wire Type THHN insulation, No. 10 AWG, as shown.
- B. Wires for joint bonds shall be stranded single conductor copper wire Type HMW/PE insulation No. 8 AWG. Two (2) joint bonds shall be used for each joint.
- C. All wire test leads and anode leads shall extend a minimum of eighteen inches (18 in) above grade after connection to the test station panel board.

2.3 PANEL BOARDS

- A. Test station panel boards shall be made of four inch by four inch by one-fourth inch (4 in x 4 in x 1/4 in) fabric reinforced Micarta. Double-nutted nickel plated brass studs shall be installed on the panel boards.

as shown on the Drawings Tinned copper ring terminals shall be soldered to the ends of all wires terminated in the test station

2.4 SHUNTS

- A Shunts for all sacrificial anode test stations shall be one hundredth ohm (0.01Ω), six ampere (6 A) capacity, manganin wire type.

2.5 EXOTHERMIC WELD EQUIPMENT

- A Cable connections to pipe and fittings shall be made with exothermic weld kits specifically designed by the manufacturer for welding the types of materials and shapes indicated by each installation unless otherwise specified on the Drawings. Connections to ductile iron and cast iron pipe or fittings shall use the weld metal and mold for exothermic connections to cast iron pipe. The mold and weld metal shall be supplied by the same manufacturer. Weld metal shall be Type XF manufactured by Erico, Inc. or approved equal.
- B Exothermic weld equipment shall be as manufactured by "Cadweld" Erico Products, "Thermoweld" Continental Industries, Inc., or approved equal.
- C All welds shall be made utilizing copper wire sleeves and individual components shall not be interchanged between different manufacturers.

2.6 BITUMASTIC COATING

- A. Bitumastic Coating shall be TC Mastic, as manufactured by Tapecoat Company; Bitumastic 50, as manufactured by Koppers Company, Inc., or an approved equal.

2.7 INSULATING FLANGE

- A Insulating flange gaskets shall be Neoprene-faced phenolic, suitable for the Work as indicated on the details shown on the Drawings. Sleeves shall be full length and of a material indicated by the manufacturer as suitable for domestic water. Flange bolts, nuts and washers shall be stainless steel and shall fit within the bolt facing of the flange.
- B. Contractor shall provide two (2) sets of insulating washers which are one-eighth inch ($1/8$ in) thick laminated phenolic. Insulating washers shall fit within the bolt facing the flange over the outside diameter of the sleeve.
- C Insulating sleeves shall be spiral wound Mylar, one-thirty-second inch ($1/32$ in) thick.

- D Underground dielectric insulating flanges shall be covered with petrolatum wax tape.

2 8 PETROLATUM WAX TAPE SYSTEM (FOR ISOLATED FITTINGS AND ALL RESTRAINING DEVICES)

- A. Petrolatum wax tape system for coating buried insulating flanges shall be Trenton Primer and #1 Wax-tape, as manufactured by Trenton Corp, or Denso Paste and Densyl Tape by Denso North America, Inc, or approved equivalent.
- B. Petroleum Tape System Primer: Saturated petroleum hydrocarbon, non-drying, non-hardening
- C. Mastic: Saturated petroleum hydrocarbon, non-hardening, self-supporting compound.
- D. Tape: Non-woven synthetic fabric, fully impregnated and coated with neutral petroleum-based compound
- E. Overwrap: Plasticized PVC tape with natural and synthetic rubber adhesive.

2 9 TEST STATION BOX

- A The traffic valve box for test stations shall be an H10 rated, G5 Utility Box as manufactured by Christy Concrete Products, Inc, or approved equal
- B The traffic box covers for insulating test stations shall be cast iron with the legend "ANODE" as indicated on the Drawings.

2 10 COATING AND LINING

- A All cast-iron and steel valves, burys, spool pieces, flanged adapters, reducers, tees, crosses and other buried, ferrous metallic fittings, shall require a fusion epoxy coating and lining prepared from a one hundred percent (100%) dry epoxy resin applied by either the fluidizing bed method or electrostatically, in accordance with AWWA C213 for fittings and with AWWA C550 for valves. The minimum coating thickness shall be eight (8) mils and the maximum coating thickness shall be twenty-four (24) mils
- B For valves, lining materials shall not be applied to valve stems, valve discs or parallel disc seats. Lining materials shall not be built up in thickness so as to interfere with joint assembly or with operation of the

valve being epoxy lined, and in any case, should not be greater than twelve (12) mils

- C Inspection shall be carried out to determine the dry film thickness of the coating and or lining of each fitting Any fitting not meeting this specification shall be replaced
- D Holidays in the protective coating shall be repaired in the field as directed.

PART III EXECUTION

3.1 EXCAVATION AND BACKFILL

- A Refer to Section 02125 – Excavation and Backfill for Utilities

3.2 FOREIGN STRUCTURE INTERFERENCE

- A Prevent electrical contact between the metallic pipe and/or fittings being cathodically protected and other existing buried metal structures at the time of the installation of the cathodic protection system Where necessary, or required by the Project Manager, the Contractor shall install appropriately sized mica sheeting, one-fourth inch (1/4 in) in thickness between the two (2) metallic surfaces.

3.3 INSULATED FLANGED JOINTS

- A Insulating components of each insulation flange kit shall be cleaned of all dirt, grease, oil, and other foreign materials immediately prior to assembly. Bolt holes in mating flanges shall be properly aligned at the time bolts and insulating sleeves are inserted to prevent damage to the insulation. After flange bolts have been tightened, each insulating washer shall be inspected and replaced by the Contractor if cracked or other damaged.
- B Install insulated flanged joints at flanges connecting above-ground installations, and at other locations shown on the Drawings

3.4 JOINT BONDING

- A For metallic pipe, joint bond all non-welded rubber gasket joints, mechanical joints, and fusion epoxy coated flanged joints as indicated on the details shown on the Drawings to provide electrical continuity between all metallic sections of the facility to be protected
- B All buried fusion-bonded epoxy coated pipe fittings shall be bonded for continuity Joint bonds, for fusion-bonded epoxy coated pipe fittings

shall be installed with a wire loop extended above the bonded joint. The overall length of the conductor shall permit sufficient flexibility of each fitting across the joint without transferring any tensile stress to the bond cable. Cable to fitting connections shall be in conformance with these specifications. Coat all exposed surfaces of each fitting with liquid epoxy patch kit, as supplied by the pipe coating manufacturer.

3.5 EXOTHERMIC WELDS

- A Exothermic weld connections shall be installed in the manner and at the locations shown on the Drawings. Coating materials shall be removed from the surface over an area just sufficient to make the connection. The steel surface shall be cleaned to white metal by grinding or filing prior to welding the conductor. Resin impregnated grinding wheels shall not be allowed.
- B No connections to the structures or piping shall be buried until the Project Manager has inspected the connections and given permission to backfill. Connections made in violation of this provision shall be rejected.
- C Exothermic welds shall be tested by the Contractor for adherence to the pipe and for electrical continuity between the pipe and wires.
- D A twenty-two ounce (22 Oz) hammer shall be used for testing adherence by striking a blow to the weld. Take care to avoid hitting the wires.
- E After welding, coat all bonds with Bitumastic coating as directed. Protect all exposed wires and welds with Royston Handy Cap, or equal.

3.6 WIRES

- A Wires buried in the ground shall be laid straight, without kinks, and provide a minimum cover of twenty-four inches (24 In). Keep the bottom of the finished trench free from stones, roots or other materials that might injure the insulation of the conductors.
- B Each cable run shall be continuous in length and free of joints or splices, unless otherwise specified or shown on the Drawings. Care shall be used during installation to avoid punctures, cuts and similar damage to the insulation. Any damage to insulation shall require replacement of the entire cable length by Contractor. Copper ring terminals shall be crimped and soldered to the ends of the test leads, drain wires and anode leads terminated in the test station.
- C At least eighteen inches (18 In) of slack shall be left for each conductor.

at each test station housing. Slack shall be that amount of wire which, when the cover is removed and the wire extended, protrudes beyond the opening of the box or enclosure. No wire bend shall have a radius of less than eight (8) times the diameter of that wire. Copper terminal rings sized for wire and stud shall be used to make all wire connections to terminal studs.

3.7 GALVANIC ZINC ANODES

- A. Excavate a hole to a minimum of three inches (3 In) larger than the packaged sacrificial anode diameter, and to a depth one foot (1 Ft) below the fittings to be protected. Excavate the lead wire trench to the depth indicated on the details shown on the Drawings, and backfill in conformance with these Technical Specifications.
- B. Exercise care to preclude damaging the cloth bag and lead wire insulation on the sacrificial anode. Do not lift or support anode by the lead wire. Plastic or paper bags shall be removed from the anode before lowering into the hole.

3.8 PETROLATUM WAX TAPE

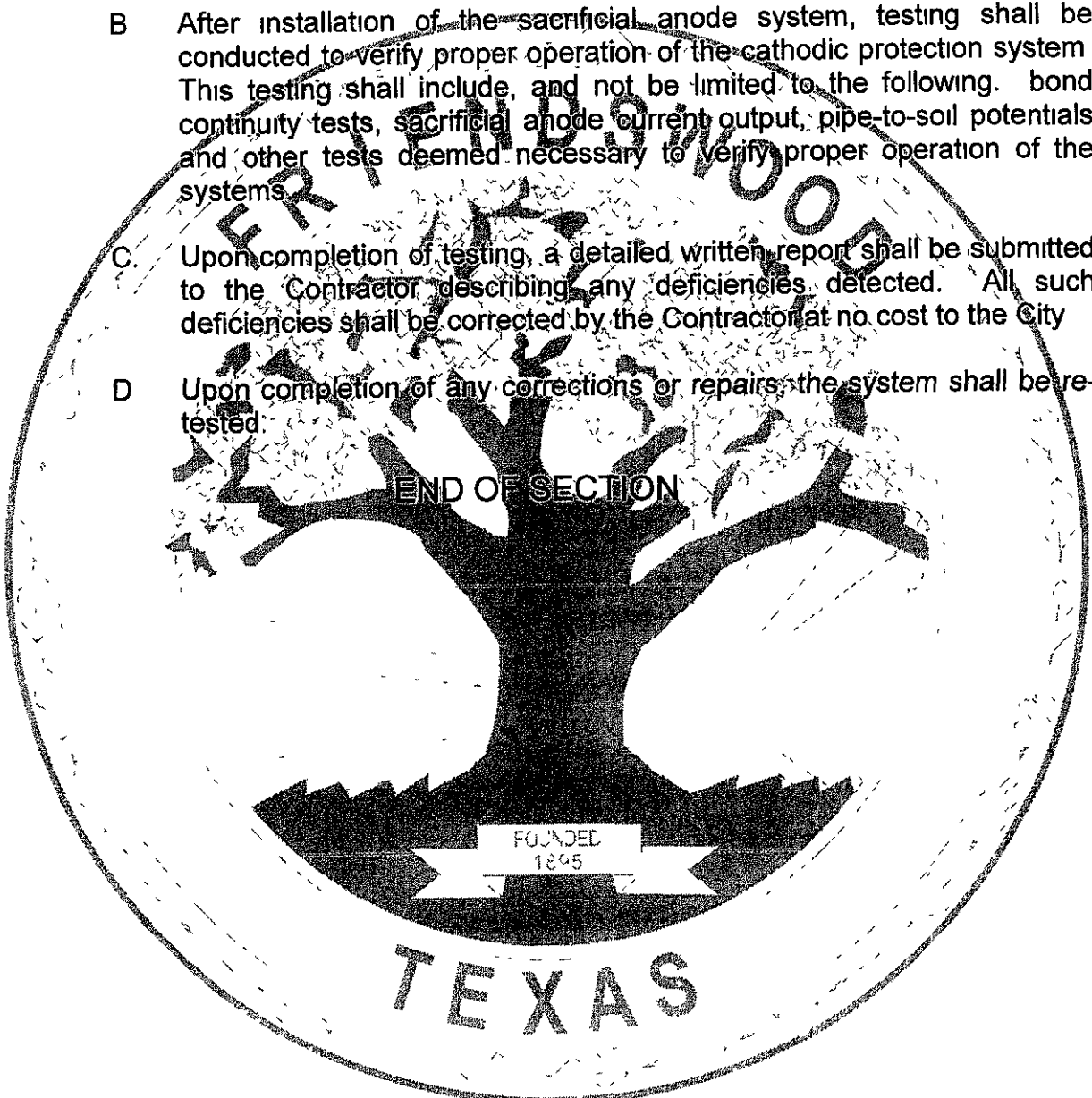
- A. Install per manufacturer's instructions.
- B. Wire brush dirt and loose rust from substrate, apply primer by brush and work in to obtain a full film cover on substrate.
- C. Install mastic to contour all sharp edges and irregular profiles.
- D. Spirally apply tape with minimum fifty-five percent (55%) overlay smooth tape to exclude voids and seal overlaps.

3.9 ANODE TEST STATION

- A. Anode test stations shall be installed at the locations shown or called for on the Drawings. Two (2) test leads shall be connected at the nearest pipe joint to the test station.
- B. All connections of test lead wires to metal surfaces at the point of connection shall be cleaned by grinding or filing prior to welding the conductor. Cover finished connections with bitumastic.
- C. Anode test station boxes shall be installed using a concrete collar satisfactory to prevent settlement. Set this concrete collar level and flush with the top of curb or finish grade.
- D. No more than one (1) test station is allowed in each test station box.

3.10 SYSTEM TESTING

- A System testing shall be performed by the Project Manager, a Professional Engineer Licensed by the State of Texas or a qualified testing firm
- B After installation of the sacrificial anode system, testing shall be conducted to verify proper operation of the cathodic protection system. This testing shall include, and not be limited to the following: bond continuity tests, sacrificial anode current output, pipe-to-soil potentials and other tests deemed necessary to verify proper operation of the systems.
- C Upon completion of testing, a detailed written report shall be submitted to the Contractor describing any deficiencies detected. All such deficiencies shall be corrected by the Contractor at no cost to the City.
- D Upon completion of any corrections or repairs, the system shall be re-tested.



SECTION 02300

CAST-IN-PLACE CONCRETE MANHOLES

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Cast-in-place concrete manholes for sanitary sewers and storm sewers, including box sewers.
- B Pile-supported concrete foundation used for unstable subgrade treatment for manhole base.

1.2 MEASUREMENT AND PAYMENT

A Unit Prices

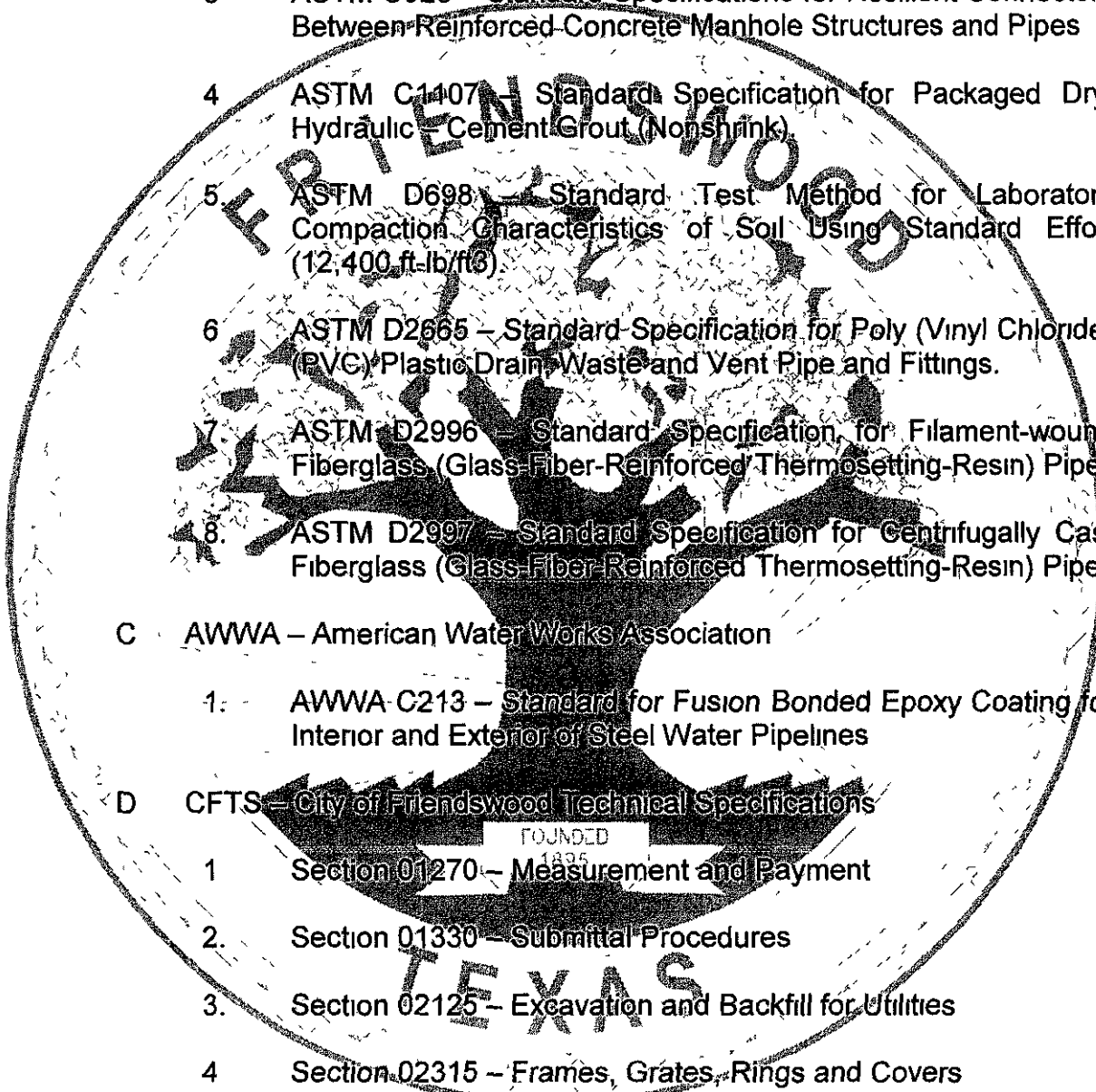
- 1 Payment for manholes is on a unit-price basis for each manhole installed.
- 2 Payment for Type C manhole with BB inlet top is on a unit price basis for each.
- 3 Payment for pile-supported concrete foundation used for unstable subgrade treatment for manhole base is on a unit price basis for each foundation installed.
- 4 Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum)

- 1 If Contract is Stipulated Price Contract, payment for Work in this Section is included in Total Stipulated Price

1.3 REFERENCES

- A ASME – American Society of Mechanical Engineers.
 - 1 ASME B16.1 – Cast Iron Pipe Flanges and Flanged Fittings
- B ASTM – American Society for Testing and Materials

- 
- 1 ASTM A307 – Standard Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile
 - 2 ASTM C270 – Standard Specification for Mortar for Unit Masonry
 - 3 ASTM C923 – Standard Specifications for Resilient Connectors Between Reinforced Concrete Manhole Structures and Pipes
 - 4 ASTM C1407 – Standard Specification for Packaged Dry, Hydraulic – Cement Grout (Nonshrink)
 - 5 ASTM D698 – Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lb/ft³)
 - 6 ASTM D2665 – Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste and Vent Pipe and Fittings.
 - 7 ASTM D2996 – Standard Specification for Filament-wound Fiberglass (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe
 - 8 ASTM D2997 – Standard Specification for Centrifugally Cast Fiberglass (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe
- C AWWA – American Water Works Association
- 1 AWWA C213 – Standard for Fusion Bonded Epoxy Coating for Interior and Exterior of Steel Water Pipelines
- D CFTS – City of Friendswood Technical Specifications
- 1 Section 01270 – Measurement and Payment
 - 2 Section 01330 – Submittal Procedures
 - 3 Section 02125 – Excavation and Backfill for Utilities
 - 4 Section 02315 – Frames, Grates, Rings and Covers
 - 5 Section 02525 – Acceptance Testing of Gravity Sanitary Sewer Lines
 - 6 Section 02905 – Topsoil
 - 7 Section 02910 – Hydromulch Seeding

- 8 Section 02915 – Sodding.
- 9 Section 03100 – Mortar
- 10 Section 03200 – Reinforcing Steel.
- 11 Section 03300 – Structural Concrete

1.4 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures
- B Submit proposed design mix and test data for each type and strength of concrete.
- C Submit manufacturer's data and details of following items for approval:
 - 1 Frames, grates, rings and covers.
 - 2 Materials to be used in fabricating drop connections.
 - 3 Materials to be used for pipe connections at manhole walls.
 - 4 Materials to be used for stubs and stub plugs
 - 5 Plugs to be used for sanitary sewer hydrostatic testing
 - 6 Installation instructions for forms.
- D Seal submittal drawings by a Professional Engineer licensed by the State of Texas.

PART II: PRODUCTS

2.1 CONCRETE

- A. Conform to requirements of Section 03300 – Structural Concrete
- B. Provide Class A concrete with minimum compressive strength of four thousand pounds per square inch (4000 psi) unless otherwise indicated on the Drawings

2.2 REINFORCING STEEL

- A Conform to requirements of Section 03200 – Reinforcing Steel

2.3 MORTAR

- A Conform to requirements of Section 03100 – Mortar

2.4 MISCELLANEOUS METALS

- A Provide cast-iron frames, grates, rings and covers conforming to requirements of Section 02315 – Frames, Grates, Rings and Covers

2.5 DROP CONNECTIONS AND STUBS

- A Provide drop connections and stubs conforming to same pipe material requirements used in main pipe, unless otherwise indicated on the Drawings

2.6 PIPE CONNECTIONS

- A Sanitary Sewers.

- 1) Provide resilient connectors conforming to requirements of ASTM C923. Use the following materials for metallic mechanical devices as defined in ASTM C923:

- a. External clamps: Type 304 stainless steel.
- b. Internal, expandable clamps on standard manholes: Type 304 stainless steel, eleven (11) gauge minimum
- c. Internal, expandable clamps on corrosion-resistant manholes:

- 1) Type 316 stainless steel, eleven (11) gauge minimum.

- 2) Type 304 stainless steel, eleven (11) gauge minimum, coated with minimum sixteen (16) mil fusion bonded epoxy conforming to AWWA C213

2. Where rigid joints between pipe and cast-in-place manhole base are specified or shown on the Drawings, provide polyethylene-isoprene waterstop meeting physical property requirements of ASTM C923, such as Pres-Seal WS Series or approved equal

B Storm Sewers.

1. Use non-shrink grout for storm sewer pipe connections to concrete manholes, unless otherwise shown on the Drawings. Pipe shall be flush with the inside wall of manhole. Grout pipe penetration in place on both inside and outside of manhole.

2.7 SEALANT MATERIALS

- A Provide sealing materials between precast concrete adjustment ring and manhole cover frame, such as Adeka Ultraseal P201, or approved equal.
- B Provide external sealing material from Canusa Wrapid Seal manhole encapsulation system or approved equal.
- C Butyl Sealant. Provide Press-Seal EZ Stick or equal, for HDPE rings.

2.8 CORROSION-RESISTANT MANHOLE MATERIALS

- A. Where corrosion-resistant manholes or PVC-lined manholes are indicated on the Drawings, provide the following:
 - 1 PVC liner for precast cylindrical manhole section, base sections and cone sections.

2.9 BACKFILL MATERIALS

- A Conform to the requirements of Section 02125 - Excavation and Backfill for Utilities.

2.10 NON-SHRINK GROUT

- A Provide prepackaged, inorganic, flowable, non-gas-liberating, non-metallic, cement-based non-shrink grout requiring only addition of water.
- B. Provide grout meeting requirements of ASTM C1107 and having minimum twenty-eight day (28-D) compressive strength of seven thousand pounds per square inch (7000 psi).

2.11 VENT PIPES

- A Provide external vent pipes for manholes where indicated on the Drawings.

- B. Buried Vent Pipes: Provide three inch (3 in) or four inch (4 in) PVC Drain, Waste and Vent (DWV) pipe conforming to ASTM D2665. Alternatively, provide Fiberglass Reinforced Plastic (FRP) pipe as specified for vent outlet assembly.
- C. Vent Outlet Assembly: Provide vent outlet assembly as shown on the Drawings, constructed of following specified materials:
1. FRP Pipe: Provide filament-wound FRP conforming to ASTM D2996 or centrifugally cast FRP conforming to ASTM D2997. Seal cut ends in accordance with manufacturer's recommendations.
 2. Joints and Fittings: Provide epoxy-bodied fittings and join pipe to fittings with epoxy adhesive according to pipe manufacturer's instructions.
 3. Flanges: Provide socket-flange fittings for epoxy adhesive bonding to pipe ends where shown on the Drawings. Meet bolt pattern and dimensions for ASME B16.1, one hundred twenty-five pound (125 lb) flanges. Use Type 304 stainless steel or hot-dip zinc coated, conforming to ASTM A 307, Class A or B flange bolts.
 4. Coating: Provide two (2) component, aliphatic polyurethane coating, using primer or tie coat recommended by manufacturer. Provide two (2) or more coats to yield dry film thickness of at least three (3) mils. Provide Amershield, Tnemec 74 or approved equal. The Project Manager selects color from manufacturer's standard colors.

PART III EXECUTION

3.1 EXAMINATION

- A. Verify lines and grades are correct.
- B. Determine if subgrade, when scarified and recompact, can be compacted to ninety-five percent (95%) of maximum Standard Proctor Density according to ASTM D698 prior to placement of foundation material and base section. When proper density cannot be reached, condition subgrade until that density is reached or treat as an unstable subgrade.

- C. Do not build manholes in ditches, swales or drainage paths unless approved by the Project Manager.

3.2 MANHOLES

- A. Construct manholes to dimensions shown on the Drawings. Commence construction as soon as possible after pipes are laid. On monolithic sewers, construct manholes at same time sewer is being constructed.
- B. Unstable Subgrade Treatment: When unstable subgrade is encountered, notify the Project Manager for examination of subgrade to determine if subgrade has heaved upwards after being excavated. When heaving has not occurred, over-excavate subgrade to allow for twenty-four inch (24 in) thick layer of crushed stone wrapped in filter fabric as foundation material under manhole base. When there is evidence of heaving, provide pile-supported concrete foundation under manhole base, as detailed on the Drawings.
- C. Cast manhole foundations and walls monolithically. Use cold joint with approved waterstop when manhole flow line depth exceeds twelve feet (12 Ft). No other joints shall be allowed unless shown on the Drawings. Wrap cold joints with external sealing material, minimum six inch (6 in) width.
- D. For concrete containing micro silica admixtures, place, finish and cure concrete for manholes following procedures in Section 03300 - Structural Concrete.
- E. Top of manhole elevations shown on the Drawings are approximate, based on current pavement and natural ground conditions as determined from elevations measured on fifty foot (50 Ft) spacing. No additional payment shall be made if final elevation of manhole ring and cover is higher or lower due to requirements of finished grade or replaced pavement surface.

3.3 PIPE CONNECTIONS

- A. Install approved resilient connectors at each pipe entering and exiting sanitary sewer manholes in accordance with manufacturer's instructions.
- B. Grout storm sewer connections to manhole unless otherwise shown on the Drawings. Grout pipe penetrations both inside and outside of manhole. Pipes shall be flush with interior of the manhole.

C Ensure no concrete, cement-stabilized sand, fill or other solid material is allowed to enter space between pipe and edge of wall opening at and around resilient connector on interior or exterior of manhole. When necessary, fill space with compressible material to ensure resilient connector shall maintain full flexibility where evidence of reduced flexibility is encountered.

D Where new manhole is to be constructed on existing sewer, a rigid joint pipe may be used. Install waterstop gasket around existing pipe at center of cast-in-place wall. Join ends of split waterstop material at pipe spring line using adhesive recommended and supplied by waterstop manufacturer.

1 Field verify the elevations of all manholes to be constructed on existing sewer before the start of any related work.

2 Failure to field verify existing conditions before start of work shall be the responsibility of the Contractor should the elevations not match and the work shall be completed with no additional cost to the City.

E Do not construct joints on sanitary sewer pipe within wall sections of manholes. Use approved connection material.

F Construct pipe stubs with resilient connectors for future connections at locations and with material indicated on the Drawings. Install approved stub plugs at interior of manhole.

G Test connection for watertight seal before backfilling.

3.4. INVERTS FOR SANITARY SEWERS

A Construct invert channels to provide smooth flow transition waterway with no disruption of flow at pipe-manhole connections. Conform to following criteria:

1 Slope of invert bench one inch per foot (1 In/Ft) minimum, one and one-half inch per foot (1-1/2 In/Ft) maximum.

2 Depth of bench to invert:

a Pipes smaller than fifteen inches (15 In) one-half (1/2) of largest pipe diameter.

b Pipes fifteen inches (15 In) to twenty-four inches (24 In) three-quarters (3/4) of largest pipe diameter.

- c Pipes larger than twenty-four inches (24 In) equal to largest pipe diameter

- 3 Invert slope through manhole one-tenth foot (0.1 Ft) drop across manhole with smooth transition of invert through manhole, unless otherwise indicated on the Drawings

- B Form invert channels with Class A concrete, if not integral with manhole base. For direction changes of mains, construct channels tangent to mains with maximum possible radius of curvature. Provide curves for side inlets and smooth invert fillets for flow transition between pipe inverts

3.5 DROP CONNECTIONS FOR SANITARY SEWERS

- A Backfill drop assembly with crushed stone wrapped in filter fabric, cement-stabilized sand or Class A concrete to form solid mass. Extend cement-stabilized sand or concrete encasement minimum of four inches (4 In) outside bells.
- B. Install connection when sewer line enters manhole higher than twenty-four inches (24 In) above invert of manhole.

3.6 STUBS FOR FUTURE CONNECTIONS

- A In manholes where future connections are indicated on the Drawings, install resilient connectors and pipe stubs with approved watertight plugs.

3.7 ADJUSTMENT RINGS AND FRAME

- A Combine precast concrete or HDPE adjustment rings so elevation of installed casting cover matches pavement surface. Seal between concrete adjustment ring and precast top section with non-shrink grout, do not use mortar between adjustment rings. Apply latex-based bonding agent to precast concrete surfaces to be joined with non-shrink grout. Set cast iron frame on adjustment ring in a bed of approved sealant material. Install a sealant bed consisting of two (2) beads of sealant, each bead having minimum dimensions of one-half inch (1/2 In) and one-half inch (1/2 In) wide.
- B. Wrap manhole frame and adjustment rings with external sealing material, minimum three inches (3 In) beyond joint between ring and frame and ring and precast section.

- C For manholes in unpaved areas, set top of frame a minimum of six inches (6 In) above existing ground line unless otherwise indicated on the Drawings. Encase manhole frame in mortar or non-shrink grout placed flush with face of manhole ring and top edge of frame. Provide rounded corner around perimeter.
- D For Manholes in paved areas, set manhole cover is flush with surrounding pavement. Form a six foot by six foot (6 Ft x 6 Ft) area, full depth to subgrade and parallel to the roadway centerline, centered on the manhole. Install expansion joint material on the perimeter of the form. Install reinforcing bar and concrete typical of road paving. Ensure that manhole is flush with surrounding pavement before applying final finish and curing compound.

3.8 BACKFILL

- A. After concrete obtains adequate strength, place and compact backfill materials in area of excavation surrounding manholes in accordance with requirements of Section 02125 – Excavation and Backfill for Utilities. Use embedment zone backfill material for adjacent utilities, as shown in City of Friendswood Standard Details over each pipe connected to manhole. Provide trench zone backfill, as specified for adjacent utilities, above embedment zone backfill.
- B. Where rigid joints are used for connecting existing sewers to manhole, backfill under existing sewer up to spring line of pipe with Class A concrete or flowable fill.
- C. In unpaved areas, provide positive drainage away from manhole frame to natural grade. Provide minimum of four inches (4 In) of topsoil conforming to requirements of Section 02905 – Topsoil. Seed in accordance with Section 02910 – Hydromulch Seeding or sod disturbed areas in accordance with Section 02915 – Sodding.

3.9 FIELD QUALITY CONTROL

- A. Conduct leakage testing of Sanitary Sewer manholes in accordance with requirements of Section 02525 – Acceptance Testing of Gravity Sanitary Sewer Lines.

3.10 PROTECTION

- A. Protect manholes from damage until subsequent Work has been accepted. Repair or replace damaged elements of manholes at no additional cost to City.

- B Damaged manholes that have been repaired or replaced shall be retested at no additional cost to the City

END OF SECTION



SECTION 02305

PRECAST CONCRETE MANHOLES

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Precast concrete manholes for sanitary sewers and storm sewers
- B. Precast concrete sanitary sewer manholes with PVC liner where corrosion resistant manholes are specifically indicated in the Drawings
- C. Pile-supported concrete foundation used for unstable subgrade treatment for manhole base

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices:

1. Payment for normal depth manholes, up to eight feet (8 Ft) deep, is on a unit price basis for each manhole installed. Manhole depth is measured from top of cover to sewer invert. Air release manhole depth is measured from top of cover to inside base for air release or vacuum release manholes.
2. Payment for shallow depth manholes is on a unit price basis for each manhole installed. Shallow manholes have a depth of five feet (5 Ft) or less measured from top of cover to sewer invert.
3. Payment for extra depth manholes is on a unit price basis per vertical foot for each foot of depth greater than eight feet (8 Ft). Sewer manhole depth is measured from top of cover to sewer invert. Air release manhole depth is measured from top of cover to inside base for air release or vacuum release manholes.
4. Payment for normal depth corrosion resistant manholes is on a unit price basis for each manhole installed.
5. Payment for standard manhole drops is on a unit price basis for each drop installed. Standard manhole drops include both internal and external drops.

- 6 Payment for watertight manholes, including external vent pipe is on a unit price basis for each
- 7 Payment for air-release manhole with valves and fittings installed is on a unit price basis for each manhole with air-release valves and fittings installed
- 8 Payment for pile-supported concrete foundation used for unstable subgrade treatment for manhole base is on a unit price basis for each foundation installed.

- 9 Payment for sanitary sewer manholes shall be authorized when manhole has been tested as specified in Section 02525 – Acceptance Testing of Gravity Sanitary Sewer Lines.

- 10 Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum)

- 1 If Contract is Stipulated Price Contract, payment for Work in this Section is included in Total Stipulated Price.

13 REFERENCES

- A AASHTO – American Association of State Highway and Transportation Officials**

- B ASME – American Society of Mechanical Engineers**

- 1 **ASME B16.1 – Cast Iron Pipe Flanges and Flanged Fittings.**

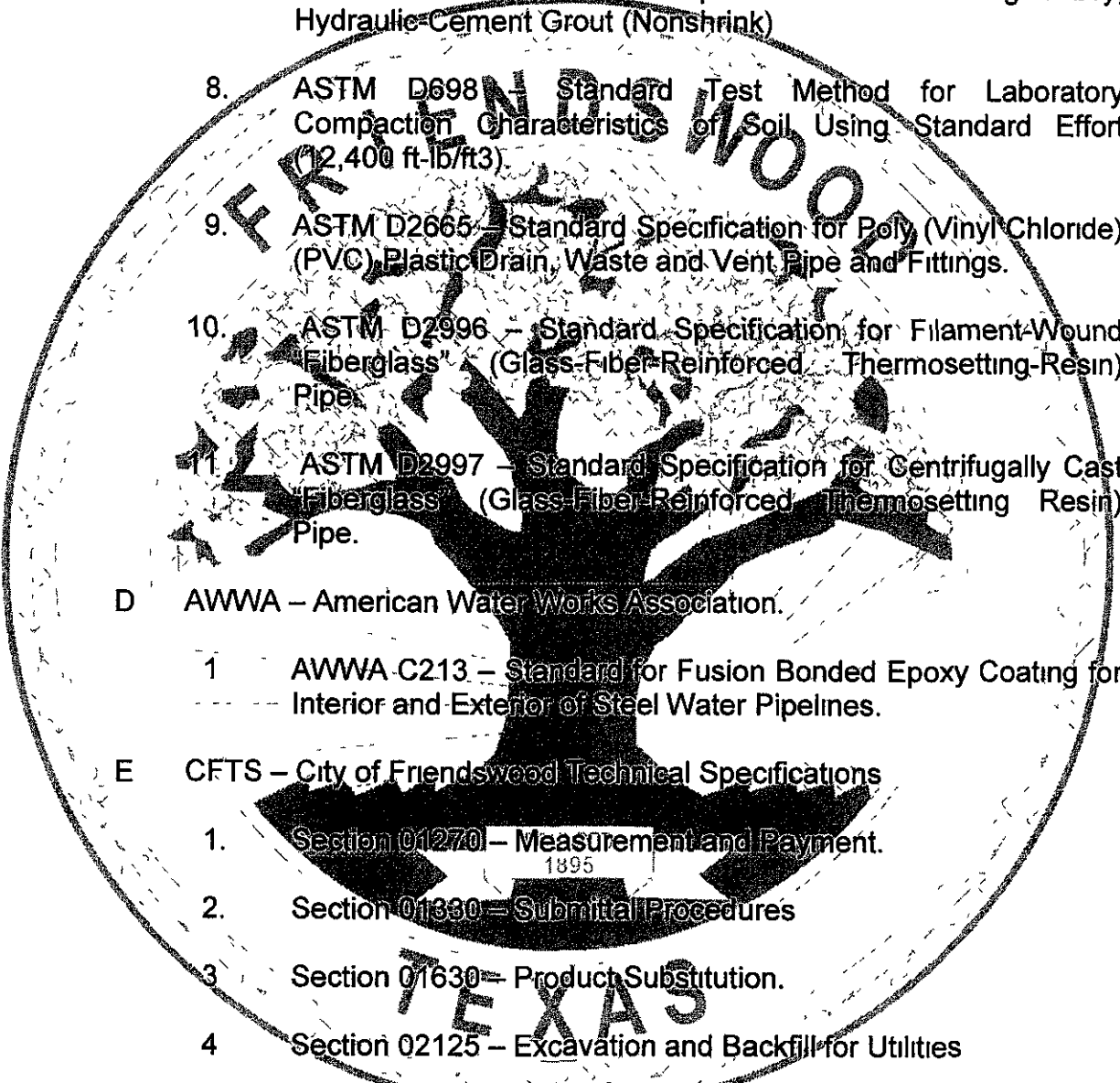
- C ASTM – American Society for Testing and Materials**

1. **ASTM A307 – Standard Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile**

- 2 **ASTM A615 – Standard Specification for Deformed and Plain Billet Steel Bars for Concrete Reinforcement**

3. **ASTM C270 – Standard Specification for Mortar for Unit Masonry**

- 4 **ASTM C443 – Standard Specification for Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets**

- 
- 5 ASTM C478 – Standard Specification for Precast Reinforced Concrete Manhole Sections.
 - 6 ASTM C923 – Standard Specifications for Resilient Connectors Between Reinforced Concrete Manhole Structures and Pipes
 - 7 ASTM C1107 – Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink)
 8. ASTM D698 – Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lb/ft³)
 9. ASTM D2665 – Standard Specification for Poly (Vinyl Chloride) (PVC) Plastic Drain, Waste and Vent Pipe and Fittings.
 10. ASTM D2996 – Standard Specification for Filament-Wound "Fiberglass" (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe.
 11. ASTM D2997 – Standard Specification for Centrifugally Cast "Fiberglass" (Glass-Fiber-Reinforced Thermosetting Resin) Pipe.
 - D AWWA – American Water Works Association.
 - 1 AWWA C213 – Standard for Fusion Bonded Epoxy Coating for Interior and Exterior of Steel Water Pipelines.
 - E CETS – City of Friendswood Technical Specifications
 1. Section 01270 – Measurement and Payment.
 2. Section 01330 – Submittal Procedures
 3. Section 01630 – Product Substitution.
 4. Section 02125 – Excavation and Backfill for Utilities
 5. Section 02145 – Cement-Stabilized Sand.
 6. Section 02315 – Frames, Grates, Rings and Covers
 7. Section 02525 – Acceptance Testing of Gravity Sanitary Sewer Lines

- 8 Section 02905 – Topsoil
- 9. Section 02910 – Hydromulch Seeding.
- 10 Section 02915 – Sodding
- 11 Section 03100 – Mortar.
- 12. Section 03200 – Reinforcing Steel
- 13. Section 03300 – Structural Concrete

1 4 SUBMITTALS

A Conform to requirements of Section 01330 – Submittal Procedures.

B Submit manufacturer's data and details of following items for approval:

- 1 Shop drawings of manhole sections, base units, and construction details, including reinforcement, jointing methods, materials and dimensions.
- 2 Summary of criteria used in manhole design, including as a minimum, material properties, loadings, load combinations and dimensions assumed. Include certification from manufacturer that precast manhole design is in full accordance with ASTM C478 and design criteria as established in Paragraph 2.1.E of this Specification.
- 3 Frames, grates, rings and covers
- 4 Materials to be used in fabricating drop connections.
- 5 Materials to be used for pipe connections at manhole walls
- 6 Materials to be used for stubs and stub plugs, if required
- 7 Materials and procedures for corrosion-resistant liner and coatings, if required
- 8 Plugs to be used for sanitary sewer hydrostatic testing
- 9 Manufacturer's data for pre-mix (bag) concrete, if used for channel inverts and benches

C Seal submittal drawings by a Professional Engineer licensed by the

02305-4

State of Texas

PART II: PRODUCTS

2.1 PRECAST CONCRETE MANHOLES

- A Provide manhole sections, base sections and related components conforming to ASTM C478. Provide base riser section with integral floors, unless shown otherwise. Provide adjustment rings which are standard components of manufacturer of manhole sections. Mark date of manufacture and name or trademark of manufacturer on inside of barrel.
- B Construct barrels for precast manholes from standard reinforced concrete manhole sections of diameter indicated on the Drawings. Use various lengths of manhole sections in combination to provide correct height with fewest joints. Design wall sections for depth and loading conditions in Paragraph 2.1.E, with minimum thickness of five inches (5 In). Base section shall have minimum thickness of twelve inches (12 In) under invert.
- C Provide tops to support HS-20 vehicle loading and receive cast iron frame covers, as indicated on the Drawings.
- D Where manholes larger than forty-eight inch (48 In) diameter are indicated on the Drawings, provide precast base sections with flat slab top precast sections used to transition to forty-eight inch (48 In) diameter manhole access riser sections. Transition can be concentric or eccentric unless otherwise shown on the Drawings. Locate transition to provide minimum of seven foot (7 Ft) head clearance from base to underside of transition unless otherwise approved by the Project Manager.
- E Design Loading Criteria: Manhole walls, transition slabs, cone tops and manhole base slab shall be designed by manufacturer to requirements of ASTM C478 for depth as shown on the Drawings and to resist following loads:
- 1 AASHTO HS-20 vehicle loading applied to manhole cover and transmitted down to transition and base slabs
 - 2 Unit soil weight of one hundred twenty pounds per cubic foot (120 pcf) located above portions of manhole, including base slab projections

- 3 Lateral soil pressure based on saturated soil conditions producing an at-rest equivalent fluid pressure of one hundred pounds per cubic foot (100 pcf)
4. Internal liquid pressure based on unit weight of sixty-three pounds per cubic foot (63 pcf)
5. Dead load of manhole sections fully supported by transition and base slabs.

F Design: Manhole walls, transition slabs, cone tops and manhole base slab shall be designed according to requirements of ASTM C478 and following:

1. Design additional reinforcing steel to transfer stresses at openings. Area of steel to be no less than shown on the Drawings
2. Wall loading conditions:
 - a. Saturated soil pressure acting on empty manhole
 - b. Manhole filled with liquid to a halfway depth as measured from invert to cover, with no balancing external soil pressure.
- 3 Minimum clear distance between two (2) wall penetrations shall be twelve inches (12 in) or half diameter of smaller penetration, whichever is greater.

G. Provide joints between sections with O-ring gaskets conforming to ASTM C423.

H. When base is cast monolithic with portion of vertical section, extend reinforcing in vertical section into base.

I. Precast Concrete Base: Suitable cutouts or holes to receive pipe and connections

2.2 CONCRETE

- A. Conform to requirements of Section 03300 – Structural Concrete
- B. Channel Inverts. Use five (5) sack premix (bag) concrete or Class A concrete for inverts not integrally formed with manhole base, with minimum compressive strength of four thousand pounds per square

inch (4000 psi)

- C Cement-Stabilized Sand Foundation Provide cement-stabilized sand foundation under base section in lieu of foundation slab, as shown on the Drawings, conforming to requirements of Section 02145 – Cement-Stabilized Sand
- D Concrete Foundation - Provide Class A concrete with minimum compressive strength of four thousand pounds per square inch (4000 psi) for concrete foundation slab under manhole base section where indicated on the Drawings.

2.3 REINFORCING STEEL

- A Conform to requirements of Section 03200 – Reinforcing Steel.

2.4 MORTAR

- A Conform to requirements of Section 03100 – Mortar.

2.5 MISCELLANEOUS METALS

- A Provide cast-iron frames, rings and covers conforming to requirements of Section 02315 – Frames, Gates, Rings and Covers.

2.6 DROP CONNECTIONS AND STUBS

- A Provide drop connections and stubs conforming to same pipe material requirements used in main pipe, unless otherwise indicated on the Drawings.

2.7 PIPE CONNECTIONS TO MANHOLE

- A Sanitary Sewers.

1. Provide resilient connectors conforming to requirements of ASTM C923. Use the following materials for metallic mechanical devices as defined in ASTM C923

- a External clamps. Type 304 stainless steel
- b Internal, expandable clamps on standard manholes Type 304 stainless steel, eleven (11) gauge minimum
- c Internal, expandable clamps on corrosion-resistant manholes

- 1) Type 316 stainless steel, eleven (11) gauge minimum
- 2) Type 304 stainless steel, eleven (11) gauge minimum, coated with minimum sixteen (16) mil fusion-bonded epoxy conforming to AWWA C213

2. Where rigid joints between pipe and cast-in-place manhole base are specified or shown on the Drawings, provide polyethylene-isoprene water-stop meeting physical property requirements of ASTM C923, such as Press-Seal WS Series or approved equal.

B Storm Sewer Connections

1. Provide watertight connections in accordance with ASTM C923.

2.8 SEALANT MATERIALS

- A Approved products in accordance with Section 01630 – Product Substitution
- B. Provide sealing materials between precast concrete adjustment ring and manhole cover frame, Adeka Ultraseal P201 or approved equal
- C Provide approved external sealing material from Canusa Wrapid Seal manhole encapsulation system or approved equal
- D Provide Butyl Sealant: Provide Press-Seal, EZ Stick or equal, for HDPE rings.

2.9 CORROSION RESISTANT MANHOLE MATERIALS

- A. Where corrosion-resistant manholes or PVC-lined manholes are indicated on the Drawings, provide one of following:
 - 1 PVC liner for precast cylindrical manhole section, base sections and cone sections

2.10 BACKFILL MATERIALS

- A Conform to requirements of Section 02125 – Excavation and Backfill for Utilities

2.11 NON-SHRINK GROUT

- A Provide prepackaged, inorganic, flowable, non-gas-liberating, non-metallic, cement-based grout requiring only addition of water
- B Meet requirements of ASTM C1107 and have minimum twenty-eight day (28 D) compressive strength of seven thousand pounds per square inch (7000 psi)

2.12 VENT PIPES

- A. Provide external vent pipes for manholes where indicated on the Drawings
- B Buried Vent Pipes: Provide three inch (3 In) or four inch (4 In) PVC Drain, waste and Vent (DWV) pipe conforming to ASTM D2665. Alternatively, provide Fiberglass Reinforced Plastic (FRP) pipe as specified for vent outlet assembly.
- C Vent Outlet Assembly: Provide vent outlet assembly as shown on the Drawings, constructed of following specified materials:
 - 1. FRP Pipe: Provide filament wound FRP conforming to ASTM D2996 or centrifugally cast FRP conforming to ASTM D2997. Seal cut ends in accordance with manufacturer's recommendations.
 - 2. Joints and Fittings: Provide epoxy bodied fittings and join pipe to fittings with epoxy adhesive.
 - 3. Flanges: Provide socket-flange fittings for epoxy adhesive bonding to pipe ends where shown on the Drawings. Meet bolt pattern and dimensions for ASME B16.1, one hundred twenty-five pound (125 Lb) flanges. Flange bolts shall be Type 304 stainless steel or hot-dip zinc coated, conforming to ASTM A307, Class A or B.
 - 4. Coating: Provide approved two (2) component, aliphatic polyurethane coating using primer or tie coat recommended by manufacturer. Provide two (2) or more coats to yield dry film thickness of at least three (3) mils. Color shall be selected by the Project Manager from manufacturer's standard colors.

2.13 PROHIBITED MATERIALS

- A Do not use brick masonry for construction of sanitary sewer manholes

or storm sewer manholes, including adjustment of manholes to grade
Use only specified materials listed above.

PART III. EXECUTION

3.1 EXAMINATION

- A. Verify that lines and grades are correct.
- B. Determine if subgrade, when scarified and recompactd, can be compacted to ninety-five percent (95%) of maximum Standard Proctor Density according to ASTM D698 prior to placement of foundation material and base section. When proper density is not reached, moisture condition subgrade until that density is reached or treat as unstable subgrade.
- C. Do not build manholes in ditches, swales or drainage paths unless approved by the Project Manager.

3.2 PLACEMENT

- A. Install precast manholes to conform to locations and dimensions shown on the Drawings.
- B. Place sanitary and storm manholes at points of change in alignment, grade, size, pipe intersections and end of sewer unless otherwise shown on the Drawings.

3.3 MANHOLE BASE SECTIONS AND FOUNDATIONS

- A. Place precast base on twelve inch (12 In) thick (minimum) foundation of crushed stone wrapped in filter fabric, cement-stabilized sand or concrete foundation slab. Compact cement-stabilized sand in accordance with requirements of Section 02145 – Cement-Stabilized Sand
- B. Unstable Subgrade Treatment. When unstable subgrade is encountered, notify the Project Manager for examination of subgrade to determine if subgrade has heaved upwards after being excavated. When heaving has not occurred, over-excavate subgrade to allow for twenty-four inch (24 In) thick layer of crushed stone wrapped in filter fabric as foundation material under manhole base. When there is evidence of heaving, provide pile-supported concrete foundation, as detailed on the Drawings, under manhole base

3.4 PRECAST MANHOLE SECTIONS

- A. Install sections, joints and gaskets in accordance with manufacturer's printed recommendations.
- B. Install precast adjustment rings above tops of cones or flat-top sections as required to adjust finished elevation and to support manhole frame
- C. Seal any lifting holes with non-shrink grout.
- D. Where PVC liners are required, seal joints between sections in accordance with manufacturer's recommendations.
- E. Place at least two (2) precast concrete grade rings with thickness of twelve inches (12 in) or less, under casting.

3.5 PIPE CONNECTIONS AT MANHOLES

- A. Install approved resilient connectors at each pipe entering and exiting manholes in accordance with manufacturer's instructions.
 - 1. Where smooth exterior pipes, i.e. steel, ductile iron or PVC pipes are connected to manhole base or barrel, space between pipe and manhole wall shall be sealed with an assembly consisting of rubber gaskets or links mechanically compressed to form watertight barrier. Assemblies: "Press-Wedge," "Res-Seal," "Thunderline Link-Seals," or approved equal. See the Drawings for placement of assembly in manhole sections.
 - 2. When connecting concrete or cement mortar coated steel pipes or as an option for connecting smooth exterior pipes to manhole base or barrel, space between pipe and manhole wall may be sealed with an assembly consisting of stainless steel power sleeve, stainless steel take-up clamp and rubber gasket. Take-up clamp: Minimum of nine-sixteenths inch (9/16 in) wide. Provide PSX positive seal gasket system by Press-Seal Gasket Corporation or approved equal.
- B. Grout storm sewer connections to manhole unless otherwise shown on the Drawings. Grout pipe penetration in place on both inside and outside of manhole. Pipes are to be flush with interior of the manhole.
- C. Ensure no concrete, cement-stabilized sand, fill or other rigid material is allowed to enter space between pipe and edge of wall opening at and around resilient connector on either interior or exterior of manhole. If necessary, fill space with compressible material to ensure full flexibility

provided by resilient connector

- D Where new manhole is constructed on existing sewer, rigid joint pipe may be used. Install waterstop gasket around existing pipe at center of cast-in-place wall. Join ends of split waterstop material at pipe springline using an adhesive recommended and supplied by waterstop manufacturer.

1. Field verify the elevations of all manholes to be constructed on existing sewer before the start of any related work.
2. Failure to field verify existing conditions before start of work shall be the responsibility of the Contractor should elevations not match and the work shall be completed with no additional cost to the City.

- E. Test connection for watertight seal before backfilling.

- F. All connection to existing manholes shall be core drilled. Making openings to existing manholes by any other means shall not be accepted.

3.6 INVERTS FOR SANITARY SEWERS

- A Construct invert channels to provide smooth flow transition waterway with no disruption of flow at pipe-manhole connections. Conform to following criteria:

1. Slope of invert bench: one inch per foot (1 In/Ft) minimum; one and one-half inches per foot (1-1/2 In/Ft) maximum.
2. Depth of bench to invert:
1895
 - a. Pipes smaller than fifteen inches (15 In): one-half (1/2) of largest pipe diameter.
 - b. Pipes fifteen inches (15 In) to twenty-four inches (24 In): three-quarters (3/4) of largest pipe diameter.
 - c. Pipes larger than twenty-four inches (24 In): equal to largest pipe diameter.
3. Invert slope through manhole: one-tenth foot (0.1 Ft) drop across manhole with smooth transition of invert through manhole, unless otherwise indicated on the Drawings.

- B Form invert channels with concrete if not integral with manhole base section. For direction changes of mains, construct channels tangent to mains with maximum possible radius of curvature. Provide curves for side inlets and smooth invert fillets for flow transition between pipe inverts.

3.7 DROP CONNECTIONS FOR SANITARY SEWERS

- A Backfill drop assembly with crushed stone wrapped in filter fabric, cement-stabilized sand or Class A concrete to form solid mass. Extend cement-stabilized sand or concrete encasement minimum of four inches (4 in) outside bells.
- B Install drop connection when sewer line enters manhole higher than twenty-four inches (24 in) above invert of manhole.

3.8 STUBS FOR FUTURE CONNECTIONS

- A In manholes where future connections are indicated on the Drawings, install resilient connectors and pipe stubs with approved watertight plugs.

3.9 MANHOLE FRAME AND ADJUSTMENT RINGS

- A Combine precast concrete or HDPE adjustment rings so elevation of installed casting cover matches pavement surface. Seal between concrete adjustment ring and precast top section with non-shrink grout, do not use mortar between adjustment rings. Apply latex-based bonding agent to precast concrete surfaces joined with non-shrink grout. Set cast-iron frame on adjustment ring in bed of approved sealant material. Install sealant bed consisting of two (2) beads of sealant, each bead having minimum dimensions of one-half inch (1/2 in) and one-half inch (1/2 in) wide.
- B Wrap manhole frame and adjustment rings with external sealing material, minimum three inches (3 in) beyond joint between ring and frame and adjustment rings and precast section.
- C For manholes in unpaved areas, set top of frame a minimum of six inches (6 in) above existing ground line unless otherwise indicated on the Drawings. In unpaved areas, encase manhole frame in mortar or non-shrink grout placed flush with face of manhole ring and top edge of frame. Provide rounded corner around perimeter.

3.10 BACKFILL

- A Place and compact backfill materials in area of excavation surrounding manholes in accordance with requirements of Section 02125 – Excavation and Backfill for Utilities. Provide embedment zone backfill material, as specified for adjacent utilities, from manhole foundation up to an elevation twelve inches (12 In) over each pipe connected to manhole. Provide trench zone backfill, as specified for adjacent utilities, above embedment zone backfill.
- B Where rigid joints are used for connecting existing sewers to manhole, backfill under existing sewer up to springline of pipe with Class B concrete or flowable fill.
- C In unpaved areas, provide positive drainage away from manhole frame to natural grade. Provide minimum of four inches (4 In) of topsoil conforming to requirements of Section 02905 – Topsoil. Seed in accordance with Section 02910 – Hydromulch Seeding. When shown on the Drawings, sod disturbed areas in accordance with Section 02915 – Sodding.
- D For Manholes in paved areas, set manhole cover is flush with surrounding pavement. Form a six foot by six foot (6 Ft x 6 Ft) area, full depth to subgrade and parallel to the roadway centerline, centered on the manhole. Install expansion joint material on the perimeter of the form. Install reinforcing bar and concrete typical of road paving. Ensure that manhole is flush with surrounding pavement before applying final finish and curing compound.

3.11 FIELD QUALITY CONTROL

- A Conduct leakage testing of sanitary sewer manholes in accordance with requirements of Section 02525 – Acceptance Testing of Gravity Sanitary Sewer Lines.

3.12 PROTECTION

- A Protect manholes from damage until work has been accepted. Repair damage to manholes at no additional cost to the City.
- B Damaged manholes that have been repaired or replaced shall be retested at no additional cost to the City.

END OF SECTION

SECTION 02310

ADJUSTING MANHOLES, INLETS AND VALVE BOXES TO GRADE

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Adjusting elevation of manholes, inlets and valve boxes to new grades

1.2 MEASUREMENT AND PAYMENT

A Unit Prices:

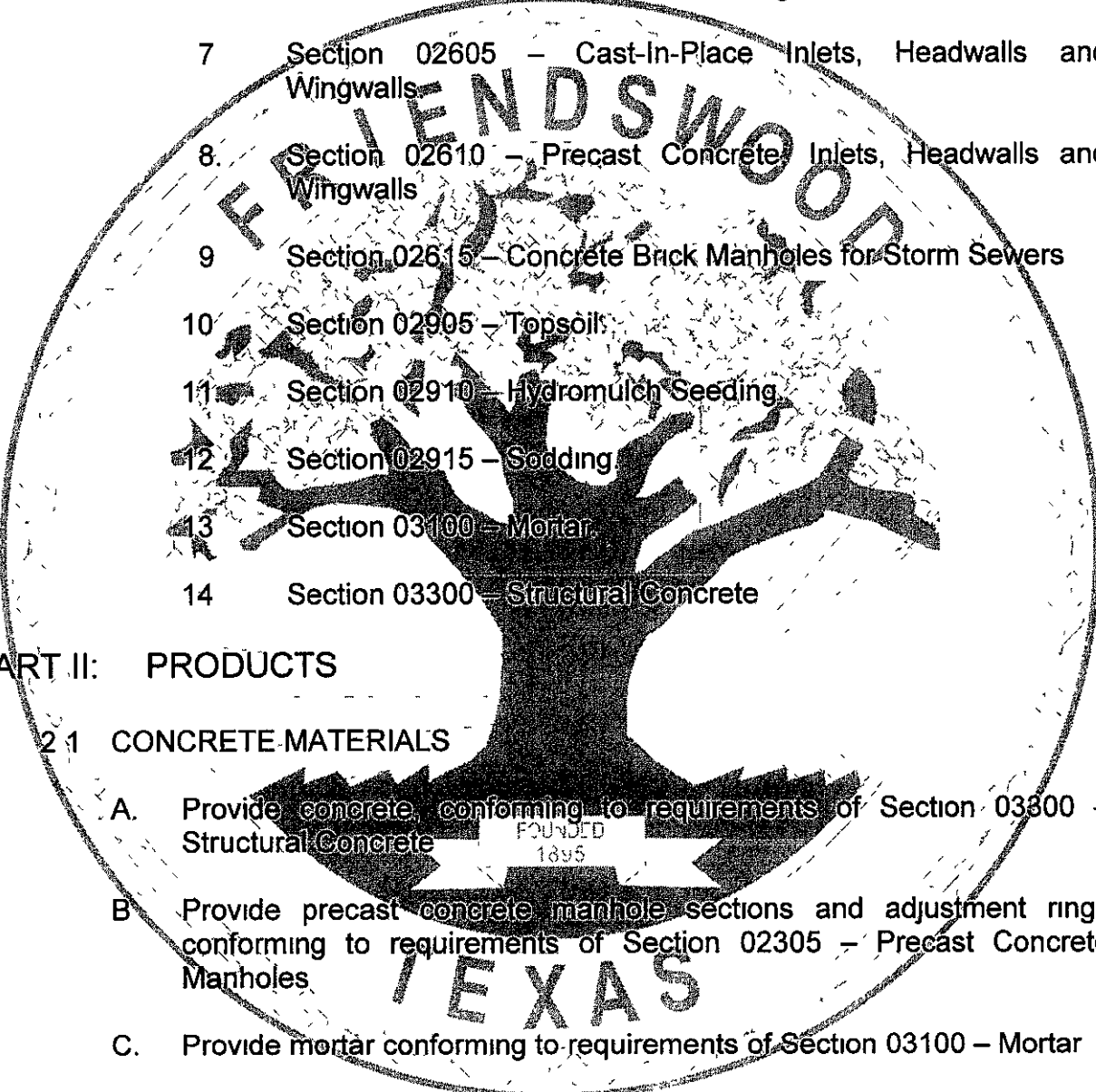
- 1 No separate payment shall be made for adjusting inlets and valve boxes to grade for new construction under this Section. Include payment in the unit price for related item.
- 2 Payment for adjusting existing manhole and frame and cover to new grade is on a unit price basis for each manhole and frame and cover.
- 3 Payment for adjusting existing utility structures to grade is on unit price basis for each:
 - a. Inlet adjusted
 - b. Valve box adjusted
 - c. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum):

- 1 If Contract is Stipulated Price Contract, payment for Work in this Section is included in Total Stipulated Price.

1.3 REFERENCES

- A CFTS – City of Friendswood Technical Specifications.
- 1 Section 01270 – Measurement and Payment.
 - 2 Section 01330 – Submittal Procedures

- 
- 3 Section 02120 – Excavation and Backfill for Structures
 4. Section 02300 – Cast-In-Place Concrete Manholes
 - 5 Section 02305 – Precast Concrete Manholes
 - 6 Section 02315 – Frames, Grates, Wings and Covers
 - 7 Section 02605 – Cast-In-Place Inlets, Headwalls and Wingwalls
 8. Section 02610 – Precast Concrete Inlets, Headwalls and Wingwalls
 - 9 Section 02615 – Concrete Brick Manholes for Storm Sewers
 - 10 Section 02905 – Topsoil
 - 11 Section 02910 – Hydromulch Seeding
 - 12 Section 02915 – Sodding
 - 13 Section 03100 – Mortar
 - 14 Section 03300 – Structural Concrete

PART II: PRODUCTS

2.1 CONCRETE MATERIALS

- A. Provide concrete conforming to requirements of Section 03300 – Structural Concrete
- B. Provide precast concrete manhole sections and adjustment rings conforming to requirements of Section 02305 – Precast Concrete Manholes
- C. Provide mortar conforming to requirements of Section 03100 – Mortar

2.2 CAST-IRON MATERIALS

- A. Provide cast-iron materials conforming to requirements of Section 02315 – Frames, Grates, Rings and Covers

2.3 PIPING MATERIALS

- A For riser pipes and fittings, refer to all Sections from Section 02200 to Section 02280

2.4 MASONRY MATERIALS FOR STORM SEWER MANHOLES AND INLETS

- A. Provide concrete brick masonry units

PART III: EXECUTION

3.1 EXAMINATION

- A. Examine existing structure, valve box, frame and cover or inlet box, frame and cover or inlet, piping and connections for damage or defects affecting adjustment to grade. Report damage or defects to the Project Manager.

3.2 ESTABLISHING GRADE

- A Coordinate grade-related items with existing grade and finished grade or paving and relate to established bench mark or reference line

3.3 ADJUSTING MANHOLES AND INLETS

- A. Curb and Gutter Streets.

- 1 Manholes and inlets in the paving shall have top of ring matching top of surrounding pavement.
2. Manholes and inlets within five feet (5 Ft) of the back of curb shall have top of ring a minimum of three inches (3 In) above the top of the nearest adjacent curb.
- 3 All other manholes and inlets shall be three inches (3 In) above finished grade. In new development where finish grade has not been established, manhole shall be six inches (6 In) above rough grade.

- B Open Ditch Streets

1. Manholes and inlets in the paving shall have top of ring matching top of surrounding pavement
- 2 Manholes and inlets between edge of pavement and top of

ditch bank shall be one inch (1 In) above adjacent finished grade.

3. Manholes and inlets at any location in ditch shall be a minimum of three inches (3 In) above the highest top of ditch bank
4. All other manholes and inlets shall be three inches above finished grade. In new development where finish grade has not been established, manhole shall be six inches (6 In) above rough grade

C Manholes in ditches shall be a minimum of three inches above the elevation at the center of the road.

D Rebuild adjustment portion of manhole or inlet by adding or removing Adjustments. Follow procedures for the type of structure being adjusted detailed in the following Sections:

1. Section 02300 – Cast-In-Place Concrete Manholes

2. Section 02305 – Precast Concrete Manholes

3. Section 02605 – Cast-In-Place Inlets, Headwalls and Wingwalls

4. Section 02610 – Precast Concrete Inlets, Headwalls and Wingwalls

5. Section 02615 – Concrete Brick Manholes for Storm Sewers

E Salvage and reuse cast-iron frame and cover or grate.

F Protect or block off manhole or inlet bottom using wood forms shaped to fit so that no debris or soil falls to bottom during adjustment

G Verify that manholes and inlets are free of visible leaks as result of reconstruction. Repair leaks in manner subject to the Project Manager's approval

3.4 ADJUSTING VALVE BOXES

A Salvage and reuse valve box and surrounding concrete block as approved by the Project Manager. No separate pay

B Remove and replace six inch (6 In) ductile iron riser pipe with suitable length for depth of cover required to establish adjusted elevation to

accommodate actual finish grade

- C Reinstall valve box and riser piping plumbed in vertical position. Provide minimum six inches (6 in) telescoping freeboard space between riser pipe top butt end and interior contact flange of valve box for vertical movement damping.
- D After valve box has been set, aligned and adjusted so that top lid is level with final grade.

3.5 BACKFILL AND GRADING

- A Backfill area of excavation surrounding each adjusted manhole, inlet and valve box and compact according to requirements of Section 02120 – Excavation and Backfill for Structures.
- B Grade ground surface to drain away from each manhole and valve box. Place earth fill around manholes to level of upper rim of manhole frame. Place earth fill around valve box concrete slab.
- C In unpaved areas, grade surface at uniform slope of one to five (1:5) from manhole frame to natural grade. Provide minimum of four inches (4 in) of topsoil conforming to requirements of Section 02905 – Topsoil. Provide seeding in accordance with Section 02910 – Hydromulch Seeding or if sodding in accordance with Section 02915 – Sodding.

END OF SECTION

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SECTION 02315

FRAMES, GRATES, RINGS and COVERS

PART I: GENERAL

1.1 GENREAL REQUIREMENTS

- A Iron castings for manhole frames and covers
- B Inlet frames and grates.
- C Catch basin frames and grates.
- D Meter vault frames and covers.
- E Adjustment of rings and extensions.
- F Ring grates

1.2 MEASUREMENT AND PAYMENT

A Unit Prices

- 1 No payment shall be made for frames, grates, rings, covers and seals under this Section. Include payment in the unit price for related item.
- 2 Payment to rack over existing manhole is on a unit price basis for each manhole.
- 3 Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum):

- 1 If Contract is Stipulated Price Contract, payment for Work in this Section is included in Total Stipulated Price

1.3 REFERENCES

- A AASHTO – American Association of State Highway Officials
 - 1 AASHTO Standard Specification for Highway Bridges

B ASTM – American Society for Testing and Materials

- 1 ASTM A48 – Standard Specification for Gray Iron Castings**
- 2 ASTM A615 – Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement**

C AWS – American Welding Society

- 1. AWS – D12.1 Welding Reinforcing Steel.**

D CFTS – City of Friendswood Technical Specifications.

- 1. Section 01270 – Measurement and Payment.**
- 2. Section 01330 – Submittal Procedures.**

1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.**
- B. Submit copies of manufacturer's specifications, load tables, dimension diagrams, anchor details and installation instructions.**
- C. Submit shop drawings for fabrication and installation of casting assemblies that are not included in the Drawings or City of Friendswood Standard Details. Include plans, elevations, sections and connection details. Show anchorage and accessory items. Include setting drawings for location and installation of castings and anchorage devices.**

PART II: PRODUCTS

2.1 CASTINGS

- A. Use castings for frames, grates, rings and covers conforming to ASTM A48, Class 35B. Provide locking covers if indicated on the Drawings.**
- B. Use clean castings capable of withstanding application of AASHTO M306- forty thousand pound (40000 Lb) proof loading without detrimental permanent deformation.**
- C. Fabricate castings to conform to shapes, dimensions and with wording or logos shown on the Drawings. Standard dimensions for manhole covers are thirty-two inches (32 In) in diameter. Twenty-four inch (24**

In) diameter is acceptable for curb inlets only

- D Use clean castings, free from blowholes and other surface imperfections. Use clean and symmetrical cast holes in covers, free of plugs

2.2 BEARING SURFACES

- A. Machine bearing surfaces between covers or grates and their respective frames so that even bearing is provided for position in which casting may be seated in frame

2.3 SPECIAL FRAMES AND COVERS

- A. Where indicated on the Drawings, provide watertight manhole frames and covers with minimum of four (4) bolts and gasket designed to seal cover to frame. Supply approved watertight manhole covers and frames.
- B. Where shown on the Drawing, provide manhole frames and covers with forty-eight inch (48 In) diameter clear opening, with inner cover for twenty-two inch (22 In) diameter clear opening. Provide approved inner cover with pattern shown on the Drawings.

2.4 FINISH

- A. Unless otherwise specified, use uncoated cast iron

2.5 FABRICATED RING GRATES

- A. Fabricate ring grates from reinforcing steel conforming to ASTM A615
- B. Conform to welds connecting bars to AWS D12.1

2.6 ADJUSTMENT RINGS FOR ASPHALT OVERLAYS

- A. Use castings conforming to Paragraph 2.1.
- B. One (1) piece casting with dimensions to fit frame and cover.

PART III EXECUTION

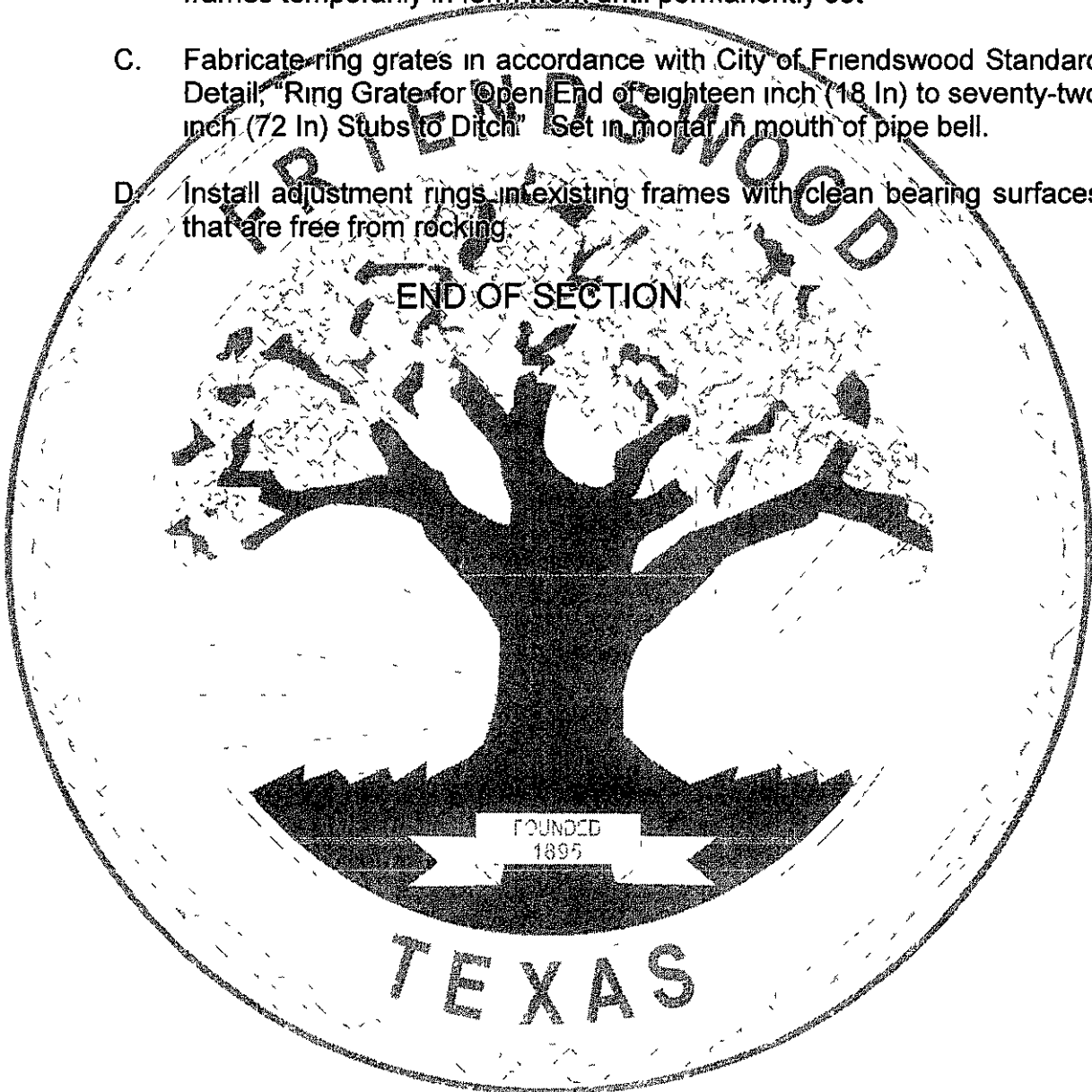
3.1 INSTALLATION

- A. Install castings according to approved shop drawings, instructions in

related specifications and applicable directions from manufacturer's printed materials

- B. Set castings accurately at required locations to proper alignment and elevation. Keep castings plumb, level, true and free of rack. Measure location accurately from established lines and grades. Brace or anchor frames temporarily in form work until permanently set.
- C. Fabricate ring grates in accordance with City of Friendswood Standard Detail, "Ring Grate for Open End of eighteen inch (18 In) to seventy-two inch (72 In) Stubs to Ditch". Set in mortar in mouth of pipe bell.
- D. Install adjustment rings in existing frames with clean bearing surfaces that are free from rocking.

END OF SECTION



SECTION 02320

SEWER MANHOLE REHABILITATION

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A. Requirements for repair and rehabilitation of sanitary sewer manholes

1.2 MEASUREMENT AND PAYMENT

- A. Unit Prices:

1. Payment for normal depth manholes, up to eight feet (8 Ft) deep, is on a unit price basis for each manhole rehabilitated. Manhole depth is measured from top of cover to sewer invert.
2. Payment for shallow depth manholes is on a unit price basis for each manhole rehabilitated. Shallow manholes have a depth of five feet (5 Ft) or less measured from top of cover to sewer invert.
3. Payment for extra depth manholes is on a unit price basis per vertical foot for each foot of depth greater than eight feet (8 Ft). Sewer manhole depth is measured from top of cover to sewer invert.
4. Payment for removal and replacement of frames and covers shall be on a unit price basis for each frame and cover replaced. Payment includes removal of existing frame and cover, replacing frame and cover, and disposal of old frame and cover following Section 02315 – Frames, grates, rings and covers, and the Standard Details in the Drawings.
5. Payment for adjustment materials shall be on a unit price basis by the vertical linear foot of adjustment materials provided. Payment includes providing adjustment materials following the Standard Details, including at least one (1) grade ring, from bottom of frame and cover to top of manhole cone.
6. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum).

- 1 If Contract is Stipulated Price Contract, payment for Work in this Section is included in Total Stipulated Price.

1.3 REFERENCES

A ASTM – American Society for Testing and Materials

- 1 ASTM C109 – Standard Test Method for Compressive Strength of Hydraulic Cement Mortars
2. ASTM C157 – Standard Test Method for Length Change of Hardened Hydraulic-Cement Mortar and Concrete.
3. ASTM C307 – Standard Test Method for Tensile Strength of Chemical-Resistant Mortar, Grouts, and Monolithic Surfacing
4. ASTM C580 – Standard Test Method for Flexural Strength and Modulus of Elasticity of Chemical-Resistant Mortars, Grouts, Monolithic Surfacing, and Polymer Concretes
5. ASTM C596 – Standard Method for Drying Shrinkage of Mortar Containing Hydraulic Cement
6. ASTM C882 – Standard Test Method for Bond Strength of Epoxy-Resin Systems Used With Concrete By Slant Shear
7. ASTM C923 – Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes and Laterals.
8. ASTM D638 – Standard Test Method for Tensile Properties of Plastics
9. ASTM D797 – Test Method for Rubber Property-Young's Modulus at Normal and Subnormal Temperatures
10. ASTM D4787 – 93(1999) Standard Practice for Continuity Verification of Liquid or Sheet Linings Applied to Concrete Substrates
11. ASTM D4833 – Standard Test Method for Index Puncture Resistance of Geotextiles, Geomembranes, and Related Products

- 12 ASTM F2414 – 04 Standard Practice for Sealing Sewer Manholes Using Chemical Grouting

B CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment
2. Section 01330 – Submittal Procedures
3. Section 01450 – Contractor's Quality Control.
4. Section 02300 – Cast-In-Place Concrete Manholes
5. Section 02305 – Precast Concrete Manholes
6. Section 02310 – Adjusting Manholes, Inlets and Valve Boxes to Grade
7. Section 02315 – Frames, Grates, Rings and Covers
8. Section 02520 – Television Inspection of Sanitary Sewer Lines
9. Section 02555 – Sanitary Sewer Bypass Pumping

C FS – Federal Specifications

- 1 Federal Standard Stock Catalogue, Section IV, Pat 5 HH-P-117

14 SUBMITTALS

A. Conform to requirements of Section 01330 – Submittal Procedures

1. Grout, Cementitious Reconstruction, Patching Materials, Chimney Seals, Manhole Liners
 - a. Material type and manufacturer to be used, including catalog data showing manufacturer's clarifications and updates, ASTM references, material composition, specifications, physical properties and chemical resistance, manufacturer's recommended mix, additives and set time.
 - b. Manufacturer's detailed description of recommended procedures for handling and storing material to include use of strip recorder to monitor temperature at storage

location

- c Manufacturer's detailed description of processes to execute the use of material including equipment required
- d Detailed description of field testing processes and procedures.
- e Certification Backup equipment is available and deliverable to the Project sites within twenty-four hours (24 Hrs).

f Shipping manifest:

- 1) Date shipped
- 2) Origination and delivery locations
- 3) Shipping method and carrier.
- 4) Shipping order number
- 5) Purchase order number.
- 6) Shipped item
- 7) Stock number
- 8) Lot number.
- 9) Manufacturer.
- 10) Any shipping, storage, or safety requirements including MSDS documents.
- 11) Received by, and date
- 12) Signature of receiver

2 Shop drawings and manufacturer's installation requirements for internal rubber sleeve chimney seals

3 Bypass pumping plan showing:

a Intake manhole.

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- b Service over pumping
- c Receiving manhole
- d. Expected flows
- e Pump size.
- f. Pipe layout
- g. Backup equipment.
- h. Procedures to monitor upstream lines for backup impacts
- i. Procedures for setup and breakdown of pumping operations.
- 4. Emergency plan detailing procedures to be followed in event of pump failures, sewer overflows, service backups, and sewage spillage. Maintain a copy of emergency plan on site for duration of the Project.
- B Submit following in accordance with Section 01450 – Contractor's Quality Control
 - 1 - Certified statement from manufacturer that the Contractor is an approved - installer of the material or system, with manufacturer's certificates of training for each crew member involved in each process.
 - a Documentation for products and installers must be approved by the Project Manager before installation of material.
 - 2 For each manhole rehabilitated, complete and accurate record of the work completed
 - a Show identifying number and location, quantities of rehabilitation material used, estimate of infiltration/inflow eliminated, and results of post-rehabilitation inspection
 - 3 Field test reports

1 4 DELIVERY, STORAGE, AND HANDLING

- A Protect, store, and handle during transportation and delivery, while stored on-site, and during installation following approved submittals
 - 1 Maintain temperature less than one hundred twenty degrees Fahrenheit (120° F) while in storage.
- B Material found to be defective or damaged due to manufacture or shipment
 - 1 Repair following manufacturer's recommendations if the Project Manager deems item to be repairable
 - 2 Material not deemed repairable. Reject, remove from The Project site, and replace at the Project Manager's direction.

1 5 QUALITY ASSURANCE

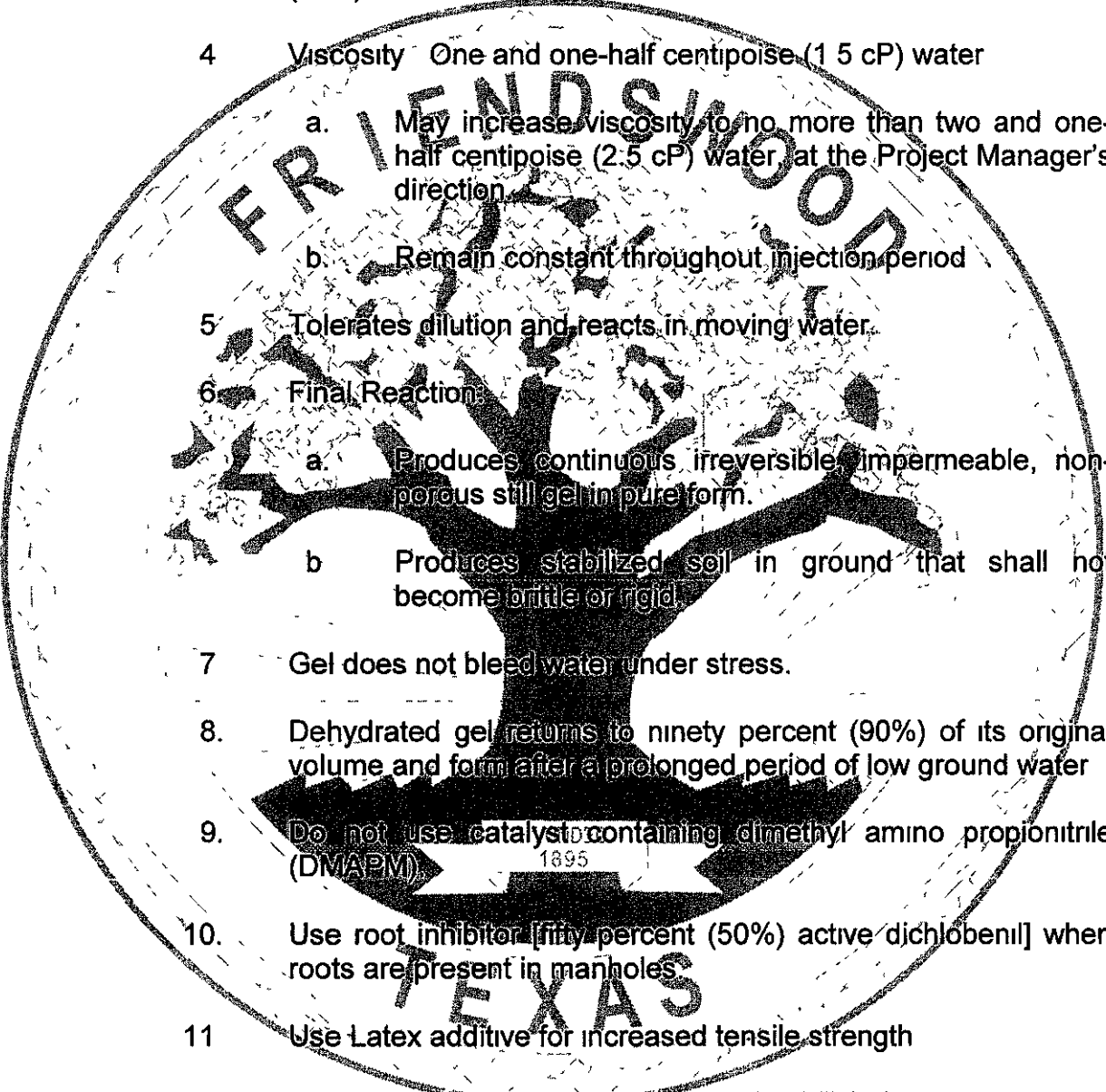
- A Follow national standards and as specified herein.
- B. The Contractor's personnel involved in installation of materials Certified by manufacturer that they have successfully completed training in handling, applying and finishing materials used
- C. The Contractor. Inspect pre-rehabilitation work, rehabilitation operations, and post-rehabilitation work
- D. For a product to be considered commercially proven, a minimum of one thousand vertical linear feet (1000 Vlf) of manhole rehabilitation must have been completed over a period of at least three years (3 Yrs) with the material proposed by the Contractor or by other contractors. Submit description of each project including material used, vertical linear feet of manhole rehabilitated and owner's contact information.

PART II. PRODUCTS

2 1 MATERIALS

- A Acrylic or Acrylate Base Grout
 - 1 Two (2) part chemical grout mixed at point of injection
 - 2 Minimum twenty-five percent (25%) acrylic or acrylate base material by volume

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- 
- a Use higher concentration of base material, at the Project Manager's direction, to increase strength or offset dilution during injection period
- 3 Controllable Reaction Time Ten seconds (10 Sec) to one hour (1 Hr)
- 4 Viscosity One and one-half centipoise (1.5 cP) water
- a. May increase viscosity to no more than two and one-half centipoise (2.5 cP) water, at the Project Manager's direction.
- b. Remain constant throughout injection period
- 5 Tolerates dilution and reacts in moving water.
- 6 Final Reaction:
- a. Produces continuous irreversible, impermeable, non-porous still gel in pure form.
- b. Produces stabilized soil in ground that shall not become brittle or rigid.
- 7 Gel does not bleed water under stress.
8. Dehydrated gel returns to ninety percent (90%) of its original volume and form after a prolonged period of low ground water
9. Do not use catalyst containing dimethyl amino propionitrile (DMAPM).
10. Use root inhibitor [fifty percent (50%) active dichlobenil] when roots are present in manholes.
- 11 Use Latex additive for increased tensile strength
- 12 Tinted to allow detection of grout in drill holes or at leakage locations
- 13 Approved Manufacturers.
- a Grout

- 1) Avanti International, AV 118 Duriflex.
- 2) De Neef, Inc., AC400
- 3) Or Equal

b Root Inhibitor

- 1) Avanti, Norosac AC 50W.
- 2) Or Equal

c Latex Additive

- 1) Avanti, AV-257 Icaset
- 2) Or Equal

B Urethane Base Grout

1. Ratio One (1) part urethane prepolymer to one (1) to ten (10) parts water by volume [ten percent (10%) to fifty percent (50%) prepolymer].

2 Liquid Prepolymer

- a Solids Content Seventy-seven percent (77%) to eighty-three percent (83%)

- b. Specific Gravity: 1.04

- c. Flash Point: Twenty degrees Celsius (20° C)

- d. Viscosity: Two hundred centipoise (200 cP) to one thousand two hundred centipoise (1200 cP) at seventy degrees Fahrenheit (70° F).

- 3 Water for reacting prepolymer: pH of five (5) to nine (9).

- 4 Use gel control agent to control cure time as required

- 5 Final Reaction.

- a Produces chemically stable, non-biodegradable, flexible gel, impermeable to water at pressures up to fifteen pounds per square inch (15 psi)

- 6 Use root inhibitor [fifty percent (50%) active dichlobenil] when roots are present in manholes
- 7 Use Latex additive for increased tensile strength
- 8 Tinted to allow detection of grout in drill holes or at leakage locations

9 Approved Manufacturers

a Grout

- 1) 3M Corporation, Scotch-Seal 5610
- 2) De Neef, Inc., Hydroactive Multigel NF.
- 3) Avanti International, AV 350.
- 4) Or Equal.

b Root Inhibitor

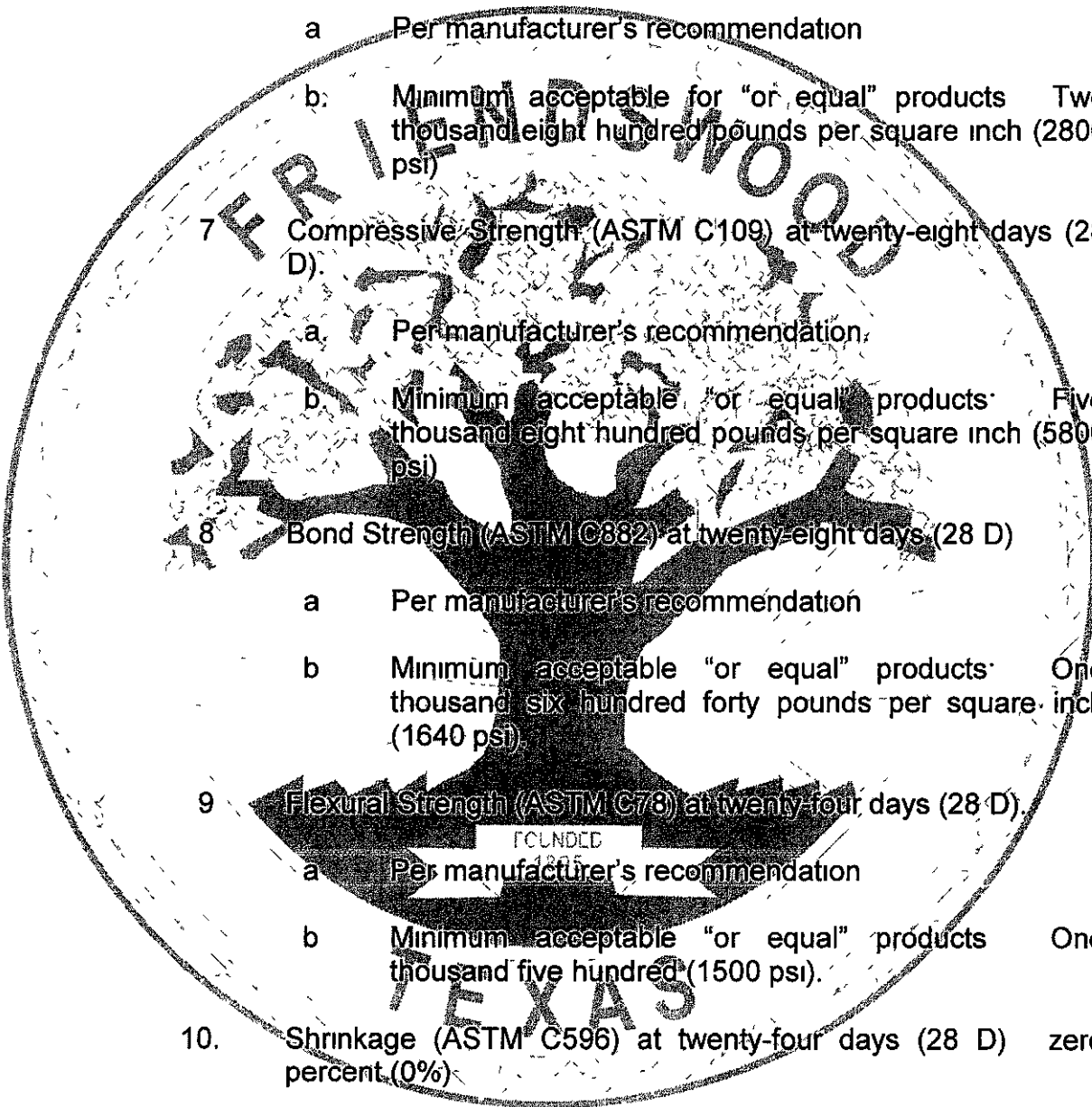
- 1) Avanti, Norosac AC 50W
- 2) Or Equal.

c Latex Additive

- 1) Avanti, AV-257 Icoseal
- 2) Or Equal

C Cementitious Reconstruction for Manhole Restoration

1. Quick-setting, high-strength, corrosion-resistant cementitious material.
2. Suitable for rotary spray application to inside of manhole
3. Use additives to increase corrosion resistance or bond strength at manufacturer's direction and with the Project Manager's approval
4. Initial set time per manufacturer's recommendation and per the Project conditions

- 
5. Density when applied: One hundred thirty-five pounds per cubic foot (135 Lb/Cf) plus or minus five pounds per cubic foot (± 5 Lb/Cf).
6. Compressive Strength (ASTM C109) at one day (1 D)
- a. Per manufacturer's recommendation
 - b. Minimum acceptable for "or equal" products: Two thousand eight hundred pounds per square inch (2800 psi)
7. Compressive Strength (ASTM C109) at twenty-eight days (28 D).
- a. Per manufacturer's recommendation
 - b. Minimum acceptable "or equal" products: Five thousand eight hundred pounds per square inch (5800 psi)
8. Bond Strength (ASTM C882) at twenty-eight days (28 D)
- a. Per manufacturer's recommendation
 - b. Minimum acceptable "or equal" products: One thousand six hundred forty pounds per square inch (1640 psi)
9. Flexural Strength (ASTM C78) at twenty-four days (28 D).
- a. Per manufacturer's recommendation
 - b. Minimum acceptable "or equal" products: One thousand five hundred (1500 psi).
10. Shrinkage (ASTM C596) at twenty-four days (28 D) zero percent (0%)
11. Approved Manufacturers
- a. IPA Systems, Inc , Octocrete
 - b. The Strong Company, Inc , Strong-Seal

- c. AP/M Permaform, Permacast MS-10,000 or CR-9,000
- d. Sauereisen, F-120 Underlayment
- e. QuadEx Aluminaliner.
- f. Or Equal.

D Hydraulic Water Plugs

1. Rapid-setting hydraulic water plug to plug active leaks prior to other rehabilitation work.
2. Initial Set Time at seventy degrees Fahrenheit (70° F): Sixty seconds (60 Sec) to ninety seconds (90 Sec).
3. Final Set Time at seventy degrees Fahrenheit (70° F): One hour (1 Hr).
4. Compressive Strength (ASTM C109) at twenty-eight days (28 D).
 - a. Per manufacturer's recommendation
 - b. Minimum acceptable "or equal" products. Four thousand pounds per square inch (4000 psi)
5. Length Change (ASTM C157) Zero percent (0%)
6. Approved Manufacturers:
 - a. Sauereisen, Instaplug F-180, 1895
 - b. IPA Systems, Inc., Octoplug-Plus
 - c. The Strong Company, Inc., Strong-Seal Strong-Plug
 - d. AP/M Permaform, Permacast-Plug
 - e. Or Equal

E Oil-free Oakum Water Plugs

1. Rapid-setting oil-free oakum and hydrophilic grout to plug active water leaks prior to other rehabilitation work

2. Oil-free oakum meeting Federal Specification HH-P-117.
- 3 Two (2) part urethane resin.
- 4 Initial Set Time. Five minutes (5 Min) to ten minutes (10 Min)
 - a Use accelerator to decrease initial set time
- 5 Approved Manufacturers:
 - a Avanti International, Oil-free Oakum (AV-219) and Multigrout (AV-202)
 - b DeNeer, Inc., Oil-free Oakum and Hydro Active Sealfoam or Hydro Active Flex LV grout
 - c Or Equal.
- F Manhole Chimney Seals.
 - 1 Elastomeric hand-applied lining or flexible internal rubber sleeve and appurtenances
 - 2 Elastomeric liner.
 - a Two (2) part urethane-based elastomer
 - b Initial Set Time at seventy degrees Fahrenheit (70° F): One hour (1 Hr)
 - c Minimum Thickness: One hundred twenty-five (125) mils.
 - d Tensile Strength (ASTM D638). Fifty-four pounds per square inch (54 psi).
 - 3 Internal Rubber Sleeve.
 - a Extruded or molded from high grade rubber compound following ASTM C923
 - b Minimum Tensile Strength (ASTM D412) One thousand five hundred pounds per square inch (1500 psi)
 - c Maximum Compression set Eighteen percent (18%)

- d Hardness (durometer) Forty-five (48) plus or minus five (± 5).
- e Minimum Thickness Three-sixteenths inch (3/16 In).
- f Sealing fins for watertight seal against manhole chimney

- g. Top and Bottom Expansion Bands. Sixteen (16) gauge Type 304 stainless steel, minimum width of one and three-quarters inches (1 3/4 In).

4. Approved Manufacturers:

a. Internal Rubber Sleeve

- 1) Cretex Specialty Products, Manhole Chimney Sleeve
- 2) NPC, FlexRib Manhole Frame Chimney Seal
- 3) Or Equal.

b. Elastomeric Liner

- 1) Sauereisen, Manhole Chimney Seal F-88
- 2) Or Equal.

G Manhole Liners.

1 Cured in Place Liners.

- a Multiple structural layers of fiberglass with non-porous membrane layer between fiberglass, or Polyvinyl Chloride/Polyester (PVCP) liner with a fiberglass layer, bonded to manhole under pressure and heat
- b Liner fabricated to match manhole dimensions for custom fit
- c Epoxy resin
 - 1) Polyamide Bisphenol "A" Epichlorodhydrin for use with fiberglass liner

2) Modified epoxy resin for use with PVCP liner

d Approved Manufacturers

1) Terre-Hill, Multi-Plexx Liner System

2) Poly-Triplex Technologies, Poly Triplex Liner System

3) Or Equal

2 Spray on Epoxy Liners

a. Two (2) or three (3) part epoxy to protect concrete and steel from chemical attack.

b. Minimum Thickness

1) Spray on Epoxy: Sixty (60) mils

2) Rotary Spray on Epoxy: One hundred twenty-five (125) mils.

c. Tensile Strength (ASTM C307) Minimum two thousand five hundred pounds per square inch (2500 psi)

d. Flexural Strength (ASTM C580) Minimum four thousand six hundred pounds per square inch (4600 psi)

e. Working Time at seventy degrees Fahrenheit (70° F) Thirty minutes (30 Min).

f. Initial Set Time at seventy degrees Fahrenheit (70° F) Seventeen hours (17 Hrs)

g. Approved Manufacturers:

1) Sauereisen, Sewer Gard No 210, No 210S or No. 210RS

2) Raven, Raven 400S

3) Terre Hill, Hydropoxy

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- 4) AP/M Permaform, Cor+Gard
- 5) SprayRoq, Inc , SprayWall
- 6) Or Equal.

3 Concrete Protective Liners.

a. High density polyethylene (HDPE) concrete protective liner

- 1) Integrally Extruded with anchoring studs, minimum thirty-nine (39) studs per square foot
- 2) Minimum Thickness of liner sheet with anchoring studs Two millimeters (2 mm)
- 3) Minimum Thickness of flat liner sheet at joint overlaps Three millimeters (3 mm)
- 4) Joints sealed using thermal welding.
- 5) Density (ASTM D792) Nine hundred forty-five thousandths gram per cubic meter (0.945 gm/cm³)
- 6) Elongation at Break (ASTM D638). Greater than four hundred percent (400%)
- 7) Minimum Abrasion Resistance (ASTM D4833) One hundred sixty pounds (160 Lbs).
- 8) Steel profiles for mounting liner

a) Maintain minimum two and one-half inch (2-1/2 in) annular space when filling with flowable concrete

b) Maintain minimum one inch (1 in) annular space when filling with grout.

c) Anchor Bolts Minimum penetration of concrete on manhole wall One and one-half inches (1-1/2 in)

- d) Countersink screws to mount liner to profiles
- 9) Cement in annular space.

- a) Minimum Compressive Strength. Four thousand pounds per square inch (4000 psi) at twenty-eight days (28 D)

- b) Minimum Aggregate size Eight millimeter (8 mm).

- c) Maximum Aggregate size Thirty-two millimeter (32 mm)

- 10) Grout in annular space.

- a) Minimum Compressive Strength Six thousand pounds per square inch (4000 psi) at twenty-eight days (28 D)

- b) Low-viscosity, high-flowability to fill annular space without voids.

- c) Bonds to manhole wall.

- 11) Approved Manufacturers:

- a) AGRU Sure Grip Concrete Protective Liner

- b) Or Equal

- b. Polyvinyl Chloride (PVC) Sheet Liner

- 1) Resin: Minimum ninety-nine percent (99%) PVC by weight

- 2) Do not use copolymer resins or recycled materials.

- 3) Minimum Thickness One and sixty-five hundredths millimeter (1.65 mm), with integrally extruded anchoring extensions on maximum two inch (2 in) center and minimum one-quarter inch (1/4 in) deep

- 4) Joints sealed using thermal welding
- 5) Tensile Strength (ASTM C307) Minimum two thousand two hundred pounds per square inch (2200 psi)
- 6) Elongation at Break (ASTM D638) Two hundred percent (200%) minimum

- 7) Mastic primer and two (2) part mastic to seal liner to manhole walls

- 8) Approved Manufacturers:

- a) Ameron, Arrow-Lock

- b) Or equal

- 4) **Cast-in-Place Concrete Liner**

- a) Formed in place seamless concrete manhole within the existing manhole, extending from bench to frame. Liner shall be structurally independent of existing manhole structure.

- b) Concrete

- 1) Type I/II Portland cement concrete

- 2) Maximum Aggregate Size: Five-eighths inch (5/8 in.)

- 3) Fiber reinforcement and plasticizers to produce minimum compressive strength of Four thousand pounds per square inch (4000 psi) at twenty-eight days (28 D)

- c) Formwork

- 1) Segmented forms in cylindrical and conical sections.

- 2) Provide adequate annular space for concrete

- 3) Result in minimum finished manhole opening of twenty inches (20 in)

- 4) Sealed at bench and pipe openings to form water stop
- 5) Removable from within new cast concrete manhole wall

d When specified, provide PVC or polyethylene liner on new interior manhole wall surface

- 1) Minimum Thickness: Sixty-five thousandths inch (0.065 In)
- 2) Ribbed or studded for embedment into concrete minimum pull out strength of one hundred pounds per linear inch (100 Lbs/Li)
- 3) Fit securely to exterior of concrete forms
- 4) Heat fuse or extrusion weld seams

e. Approved Manufacturers:

- 1) APM Permaform, Permaform Liner.
- 2) Or Equal.

H Precast Concrete Manholes: See Section 02305 – Precast Concrete Manholes and Section 02315 – Frames, Grates, Rings and Covers

I. Manhole Frames and Covers: See Section 02315 – Frames, Grates, Rings and Covers

PART III: EXECUTION

3.1 PUBLIC NOTIFICATION

A Maintain service usage throughout duration of the Project

- 1 Maximum amount of time of no service: Eight hours (8 Hrs) for any property served by a sanitary sewer. Any service out longer than eight hours (8 Hrs) shall be bypassed to a sanitary sewer.
- 2 Public Notification Program

- a Deliver written notices to each home or business forty-eight hours (48 Hrs) before commencement of the work being conducted on section, including a local telephone number of the Contractor for contact regarding inquiries or complaints.
- b Provide owner or occupant a summary of the work to be completed, and time and duration of service interruption to building
- c Contact any home or business that cannot be reconnected within time stated in written notice
- d Fax or email copies of all delivered notices to the Project Manager

3.2 MANHOLE PREPARATION

- A. Sewer Bypass Pumping: Follow Section 02555 – Sanitary Sewer Bypass Pumping and specified herein.
 - 1. Pumping failure, sewer overflow, service backup or sewage spillage: See Section 02555 – Sanitary Sewer Bypass Pumping for reporting requirements.
- B Clean interior surfaces of manhole of debris, dirt, oil, grease, remains of old coating materials, and any other extraneous materials following approved submittals for rehabilitation products used
- C. Pressure wash manhole walls to remove loose mortar, concrete, debris following approved submittals for rehabilitation products used.
- D. Repair irregularities in manhole following approved submittals for rehabilitation products used.
- E Repair leakage in manhole following approved submittals for rehabilitation products used.
- F Trim and grout incoming laterals and pipes following approved submittals for rehabilitation products used
- G Remove debris from manhole and sewer
 - 1 Handle cleaning water in closed discharge hoses to prevent water and residue from causing damage

- 2 Do not discharge debris through sanitary sewer system.
- 3 Filter solids-laden water through an approved desilting device.
- 4 Dispose of residue from cleaning and other construction operations in a manner satisfactory to the Project Manager and any other authority having jurisdiction over area where the work site is located.

3.3 GROUTING

- A Provide forty-eight hour (48 Hr) notice to the Project Manager for equipment inspection prior to start of the work.
 - 1 Allow measurements to be taken.
 - 2 Demonstrate acceptable grout volumetric measuring technique.
- B Adjust chemical mixing ratios required for specific application.
 - 1 Minimum gel time thirty seconds (30 Sec), or at the Project Manager's direction.
- C Do not block pipes entering/exiting manhole with grout.
 - 1 Use camera to confirm pipes are not blocked as required in Section 02520 – Television Inspection of Sanitary Sewer Lines
- D Do not damage manhole structure during operations.
 - 1 Repair damage at the Project Manager's direction
- E Protect area of manhole below repair the work.
 - 1 Do not allow solid material to enter sewage flow
 - 2 Remove protective devices as soon as practicable.
- F Manhole Sealing.
 - 1 Following ASTM F2414 and specified herein
 - a Do not use curtain grout sealing around brick manholes
 - b Drill only the amount of holes necessary to stop

leakage.

- c. Seal manhole base when specified. Drill holes and inject grout through manhole base

G. Cementitious Reconstruction

- 1 Mix and handle following approved submittals
- 2 Apply coating materials using rotary spray equipment or spray gun following approved submittals
- 3 Apply beginning at the top of the manhole and the work down to bench.
 - a. Seal around pipe connections and steps
- 4 Do not allow solid material to enter sewage flow
- 5 Apply thickness following approved submittals
 - a. Minimum Total Thickness: One-half inch (1/2 in)
- 6 Trowel and brush finish following approved submittals
- 7 Cure following approved submittals.
 - a. Use curing compound when recommended by manufacturer.
 - b. Do not allow flow in manhole or traffic over manhole, until manufacturer's minimum cure times have been achieved.

H. Hydraulic Water Plugs.

1. Provide mechanical key by undercutting or square cutting the opening and removing loose materials following approved submittals.
- 2 Mix, handle, place and cure following approved submittals
3. Finish surface following approved submittals and as required for other rehabilitation work

I Oil-free Oakum Water Plugs

- 1 Saturate oakum with resin following approved submittals, using additives as required Place and cure following approved submittals

J Manhole Chimney Seals.

- 1 Provide smooth circular surface for internal rubber sleeve following manufacturer's requirements, and install following Standard Details. Realign manhole frame and cover if required
2. Mix, handle, apply and cure elastomeric lining following approved submittals.

K Manhole Liners.

1 Cured in Place Liners.

- a. Custom fabricate liner to individual manhole dimensions when finished, liner forms a monolithic structure from the manhole frame to the bench
- b. Line bench area with material placed in the bottom of the manhole and extending a minimum of six inches (6 In) up the manhole wall
- c. Remove manhole steps
- d. Saturate liner with resin, place into manhole, pressurize with air or water and cure with hot water, steam or hot air following approved submittals
- e. Finish liner following approved submittals.

2. Epoxy Liners

- a. Mix and apply following approved submittals
- b. Sagging of epoxy coating not permitted
- c. Seal around pipe connections and steps
- d. Cure following approved submittals

3 Concrete Protective Liners

a Remove manhole steps

b. Liner attached to wall using supports

1) Insert liner sheet into manhole and support following approved submittals

a) Apply bonding agent compatible with grout or concrete to manhole wall before placing liner

b) Provide adequate annular space between liner sheet and manhole wall to allow placement of concrete or grout.

c) Secure liner supports to manhole walls.

d) Secure liner to supports

e) Form liner seams following approved submittals

f) Place concrete or grout with no wrinkling of liner. Vibrate to prevent voids.

g) After curing, remove internal forms or supports

h) Finish seams following approved submittals

c. **Liner Attached to Wall Using Mastic**

1) Apply mastic primer to manhole wall and cure following approved submittals.

2) Apply mastic to primed manhole wall

3) Apply liner to mastic

a) Embed anchoring extensions in mastic

b) Wrinkling of liner not permitted.

4) Finish liner seams following approved submittals

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4 Formed in Place Concrete Liner

- a Remove manhole steps.
- b Place pipe extensions in manhole at main line and pipes entering manhole
- c Erect internal forms. Place PVC or PE liner with forms when specified, and seal forms at bench to prevent concrete leakage.
- d Place concrete to prevent segregation of aggregate and cement
- e Consolidate concrete to fill pockets, seams and cracks in existing manhole wall.
- f Remove formwork when concrete is cured
- g Finish liner seams following approved submittals
- h Seal concrete liner at frame and at pipe penetrations following approved submittals.

3.4 RESET/REPLACE FRAME AND COVER

- A. Following Sections 02310 – Adjusting Manholes, Inlets and Valve Boxes to Grade and 02315 – Frames, Grates, Rings and Covers

3.5 REPLACE MANHOLE

- A. Following Sections 02300 – Cast-In-Place Concrete Manholes and 02305 – Precast Concrete Manholes.

3.6 FIELD TESTING

- A. Visual inspection to determine integrity of rehabilitation materials and water-tightness.
 - 1. Provide flow-through plugs for a duration of six hours (6 Hrs)
 - 2. No infiltration or inflow permitted
 - 3. Repair damage and leakage

- B Test manhole lining for continuity following ASTM D4787 and approved submittals. Repair holes and discontinuities following manufacturer's recommendations.
- C Test grout and concrete for compressive strength following ASTM C109

3.7 WARRANTY INSPECTIONS

- A Visual inspection to determine integrity of rehabilitation materials and water-tightness shall be conducted within three months (3 Mos) of the expiration of the guarantee period.
- B Accompany the Project Manager on inspections.
- C. Inspect twenty-five percent (25%) of manholes rehabilitated at locations selected by the Project Manager.
 - 1. No infiltration or inflow permitted.
 - 2. If any manhole fails warranty inspection, inspect all manholes rehabilitated in the Work with the Project Manager.

END OF SECTION

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SECTION 02600

STORM SEWERS

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A New storm sewers and appurtenances; modifications to existing storm sewer system and installation of roadside ditch culverts

1.2 MEASUREMENT AND PAYMENT

A Unit Prices

- 1 Payment for storm sewers, including elliptical pipe or box sections, installed by open-cut or augering with or without casing is on a linear foot basis. Measurement for storm sewers and roadside ditch culverts shall be taken along the center line of pipe from center line to center line of manholes or from end to end of culverts. Payment shall be made for each linear foot installed complete in place, including connections to existing manholes and inlets.
- 2 Payment for storm sewer leads, including elliptical, round or box leads, is on a linear foot basis.
- 3 Refer to Section 01270 – Measurement and Payment for unit price procedures.

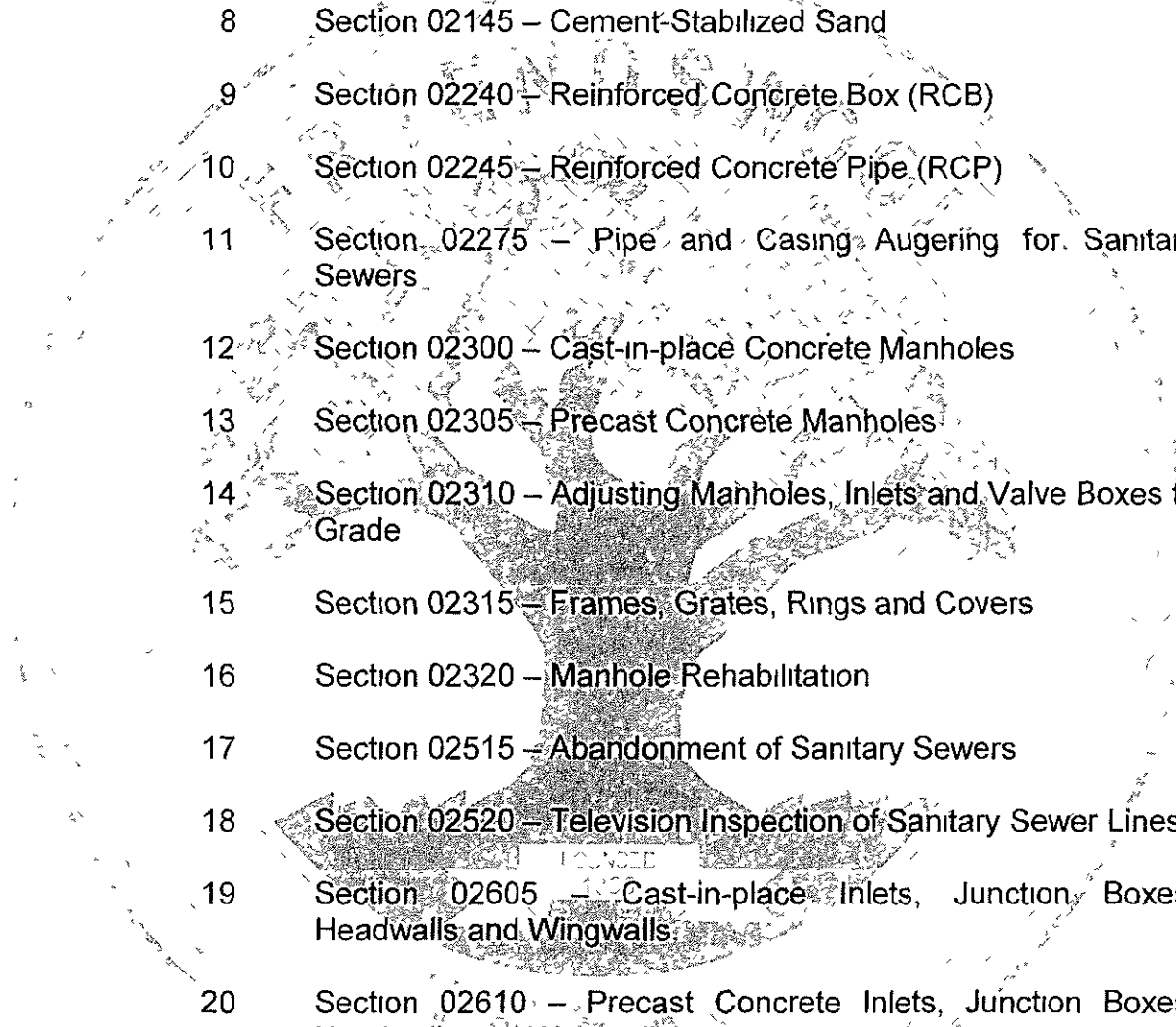
B Stipulated Price (Lump Sum)

- 1 If Contract is Stipulated Price Contract, payment for Work in this Section is included in Total Stipulated Price

1.3 REFERENCES

A CFTS – City of Friendswood Technical Specifications

- 1 Section 01270 – Measurement and Payment
- 2 Section 01330 – Submittal Procedures
- 3 Section 01555 – Traffic Control and Regulation

- 
- 4 Section 01585 – Control of Ground and Surface Water
 - 5 Section 02105 – Removing Existing Pavements and Structures
 - 6 Section 02125 – Excavation and Backfill for Utilities
 - 7 Section 02140 – Utility Backfill Material
 - 8 Section 02145 – Cement-Stabilized Sand
 - 9 Section 02240 – Reinforced Concrete Box (RCB)
 - 10 Section 02245 – Reinforced Concrete Pipe (RCP)
 - 11 Section 02275 – Pipe and Casing Augering for Sanitary Sewers
 - 12 Section 02300 – Cast-in-place Concrete Manholes
 - 13 Section 02305 – Precast Concrete Manholes
 - 14 Section 02310 – Adjusting Manholes, Inlets and Valve Boxes to Grade
 - 15 Section 02315 – Frames, Grates, Rings and Covers
 - 16 Section 02320 – Manhole Rehabilitation
 - 17 Section 02515 – Abandonment of Sanitary Sewers
 - 18 Section 02520 – Television Inspection of Sanitary Sewer Lines
 - 19 Section 02605 – Cast-in-place Inlets, Junction Boxes, Headwalls and Wingwalls
 - 20 Section 02610 – Precast Concrete Inlets, Junction Boxes, Headwalls and Wingwalls
 - 21 Section 02615 – Concrete Brick Manholes for Storm Sewers
 - 22 Section 02845 – Pavement Repair and Resurfacing
 - 23 Section 02905 – Topsoil
 - 24 Section 02910 – Hydromulch Seeding

25 Section 02915 – Sodding

1 4 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures
- B Submit manufacturer's literature for product specifications and installation instructions
- C Submit proposed methods, equipment, materials, and sequence of operations for storm sewer construction. Plan operations to minimize disruption of utilities serving occupied facilities or adjacent property

1 5 QUALITY ASSURANCE

- A The condition for acceptance shall be a watertight storm sewer that is watertight both in at all joints and at connections to manholes or inlets
- B Provide manufacturer's certification to Specifications.

1 6 PRODUCT DELIVERY, STORAGE and HANDLING

- A Comply with manufacturer's recommendations
- B Handle pipe or boxes, fittings and accessories carefully with approved handling devices. Do not drop or roll pipe or boxes off trucks or trailers. Do not use sections that are cracked, gouged, chipped, dented or otherwise damaged for installation
- C Store pipe or boxes and fittings on heavy timbers or platforms to avoid contact with ground.
- D Unload pipe or boxes, fittings and appurtenances as close as practical to location of installation to avoid unnecessary handling
- E Keep interiors of pipe or boxes and fittings free of dirt and foreign matter

PART II PRODUCTS

2 1 PIPE

- A Provide pipe or boxes for storm sewers in the sizes and types specified, unless otherwise indicated on the Drawings
- B In diameters where material alternatives are available, and such

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alternatives have been approved by the City, provide pipe or boxes from single manufacturer for each pipe or box size, unless otherwise approved by the Project Manager or otherwise shown on the Drawings

- C Existing pipe or boxes that have been removed during construction shall not be reused unless approved the Project Manager

2.2 PIPE MATERIAL SCHEDULE

- A Storm Sewer Pipe or Boxes: Use pipe or boxes that conform to requirements specified in one (1) or more of the following Sections as shown on the Drawings. Polyvinyl Chloride Pipe shall not be used for storm sewers

- 1 Section 02240 – Reinforced Concrete Box (RCB)

- 2 Section 02245 – Reinforced Concrete Pipe (RCP)

- B Driveway Culvert Pipe for Streets with Open Ditches: Use pipe or boxes that conform to requirements specified in one (1) or more of the following Sections as shown on the Drawings

- 1 Section 02240 – Reinforced Concrete Box (RCB)

- 2 Section 02245 – Reinforced Concrete Pipe (RCP)

- C Provide pipe or boxes meeting minimum class, dimension ratio or other criteria indicated

- D Pipe or boxes other than those listed above shall not be used for storm sewers.

2.3 BEDDING, BACKFILL and TOPSOIL MATERIAL

- A Bedding and Backfill Material: Conform to requirements of Sections 02125 – Excavation and Backfill for Utilities, Section 02140 – Utility Backfill Material and Section 02145 – Cement-Stabilized Sand

- B Topsoil: Conform to requirements of Section 02905 – Topsoil

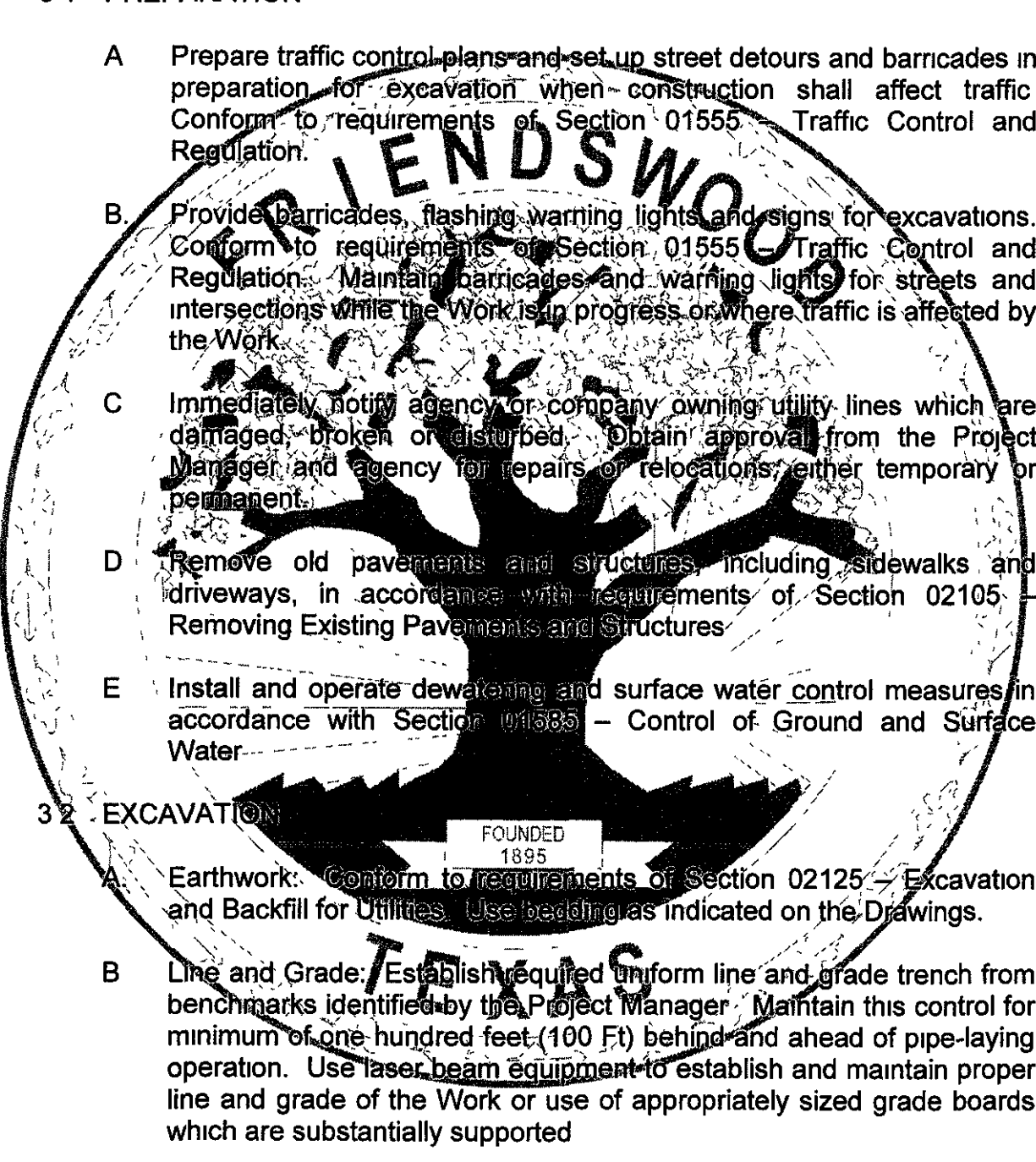
- C Use cement-stabilized sand material for bedding and backfill in the pipe or box zone for all storm sewers

- D For storm sewer pipes forty-two inches (42 in) in diameter and larger or boxes larger than four feet by four feet (4 Ft x 4 Ft), use suitable on-site material or select backfill from twelve inches (12 in) above the pipe

to twelve inches (12 In) below the pavement for backfill.

PART III: EXECUTION

3 1 PREPARATION

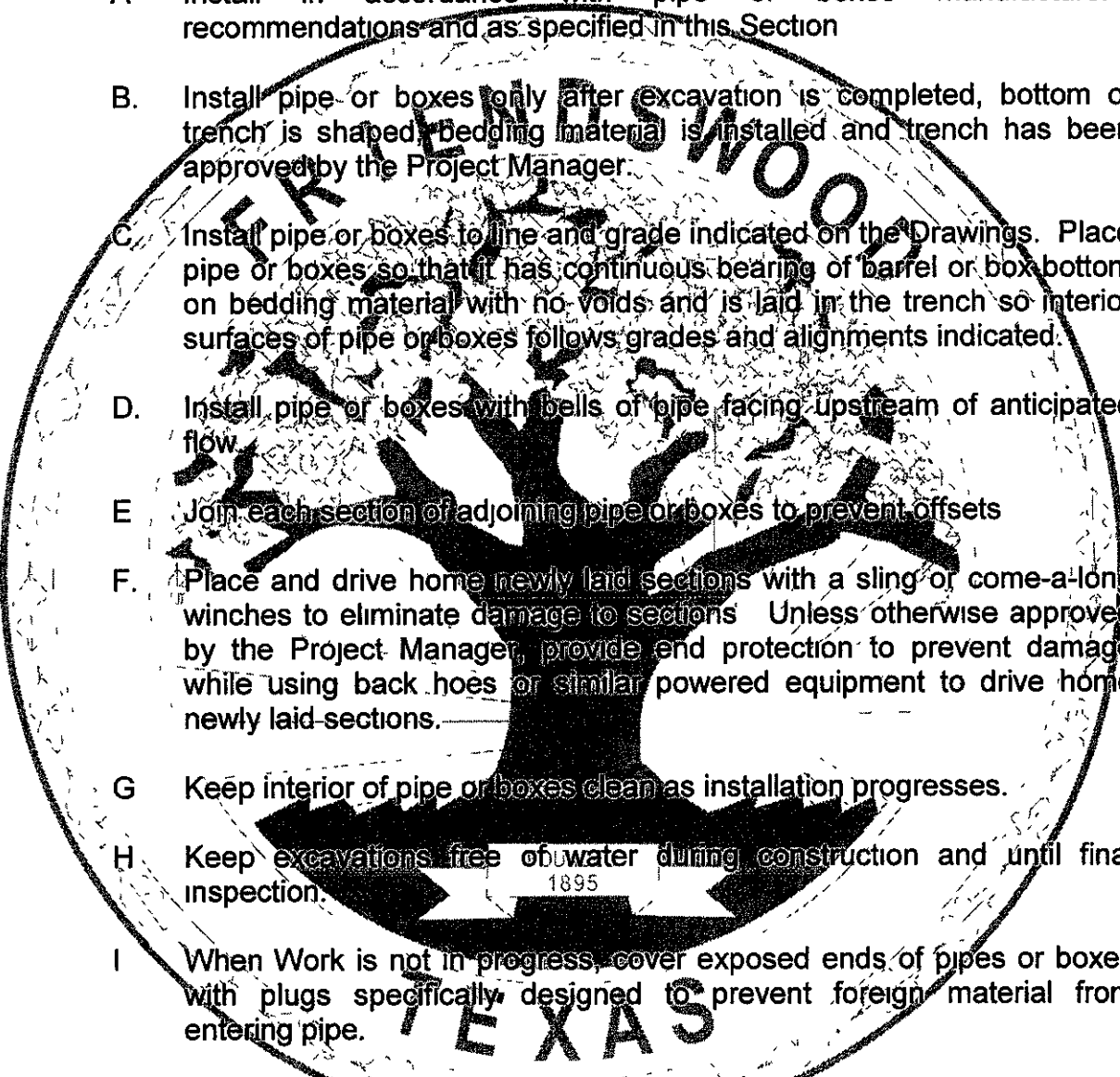
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- A Prepare traffic control plans and set up street detours and barricades in preparation for excavation when construction shall affect traffic. Conform to requirements of Section 01555 – Traffic Control and Regulation.
 - B. Provide barricades, flashing warning lights and signs for excavations. Conform to requirements of Section 01555 – Traffic Control and Regulation. Maintain barricades and warning lights for streets and intersections while the Work is in progress or where traffic is affected by the Work.
 - C Immediately notify agency or company owning utility lines which are damaged, broken or disturbed. Obtain approval from the Project Manager and agency for repairs or relocations, either temporary or permanent.
 - D Remove old pavements and structures, including sidewalks and driveways, in accordance with requirements of Section 02105 – Removing Existing Pavements and Structures.
 - E Install and operate dewatering and surface water control measures in accordance with Section 01535 – Control of Ground and Surface Water.

3 2 EXCAVATION

- A. Earthwork: Conform to requirements of Section 02125 – Excavation and Backfill for Utilities. Use bedding as indicated on the Drawings.
- B Line and Grade: Establish required uniform line and grade trench from benchmarks identified by the Project Manager. Maintain this control for minimum of one hundred feet (100 Ft) behind and ahead of pipe-laying operation. Use laser beam equipment to establish and maintain proper line and grade of the Work or use of appropriately sized grade boards which are substantially supported.
- C. Trench Excavation: Excavate trenches to the level indicated on the City's Standard Construction Details. Backfill excavation with specified bedding material to level of lower one-third (1/3) of pipe barrel or box.

Tamp and compact backfill to provide bedding at indicated grade. Form bedding foundation to a minimum depth of one-eighth (1/8) of pipe diameter or box height, but not less than six inches (6 in).

3.3 PIPE INSTALLATION

- 
- A. Install in accordance with pipe or boxes manufacturer's recommendations and as specified in this Section
 - B. Install pipe or boxes only after excavation is completed, bottom of trench is shaped, bedding material is installed and trench has been approved by the Project Manager.
 - C. Install pipe or boxes to line and grade indicated on the Drawings. Place pipe or boxes so that it has continuous bearing of barrel or box bottom on bedding material with no voids and is laid in the trench so interior surfaces of pipe or boxes follows grades and alignments indicated.
 - D. Install pipe or boxes with bells of pipe facing upstream of anticipated flow.
 - E. Join each section of adjoining pipe or boxes to prevent offsets.
 - F. Place and drive home newly laid sections with a sling or come-a-long winches to eliminate damage to sections. Unless otherwise approved by the Project Manager, provide end protection to prevent damage while using back hoes or similar powered equipment to drive home newly laid sections.
 - G. Keep interior of pipe or boxes clean as installation progresses.
 - H. Keep excavations free of water during construction and until final inspection.
 - I. When Work is not in progress, cover exposed ends of pipes or boxes with plugs specifically designed to prevent foreign material from entering pipe.
 - J. Storm sewers identified on the Drawings to be abandoned shall be abandoned in general conformance with Section 2515 – Abandonment of Sanitary Sewers

3.4 PIPE OR BOX INSTALLATION OTHER THAN OPEN CUT

- A. Conform to requirements of Section 02275 – Pipe and Casing Augering for Sanitary Sewers where required

3.5 INSTALLATION OF APPURTENANCES

- A Construct manholes to conform to requirements of Sections 02300 – Cast-in-place Concrete Manholes, Section 02305 – Precast Concrete Manholes and Section 02615 – Concrete Brick Manholes for Storm Sewers. Install frames, grate rings and covers to conform to requirements of Section 02315 – Frames, Grates, Rings and Covers.
- B Install inlets, headwalls and wingwalls to conform to requirements of Section 02605 – Cast-in-place Inlets, Junction Boxes, Headwalls and Wingwalls, and Section 02610 – Precast Concrete Inlets, Junction Boxes, Headwalls and Wingwalls.
- C Rehabilitate existing manholes and inlets to conform to requirements of Section 02320 – Manhole Rehabilitation. Adjust manhole covers and inlets to grade conforming to requirements of Section 02310 – Adjusting Manholes, Inlets and Valve Boxes to Grade.
- D Dimension for Type C and Type E manholes shall be as shown on the Drawings.

3.6 INSPECTION AND TESTING

- A Perform post-installation television inspection in accordance with Section 02520 – Television Inspection of Sanitary Sewer Lines. Hand held cameras may be used in storm sewers in lieu of requirements of Section 02520 – Television Inspection of Sanitary Sewer Lines. Clearly stencil distance markings on each joint of pipe or box to indicate distance from starting manhole when using hand-held cameras.

3.7 BACKFILL AND SITE CLEANUP

- A Backfill trench after pipe or box installation is inspected and approved by the Project Manager.
- B Backfill and compact soil in accordance with Section 02125 – Excavation and Backfill for Utilities.
- C Repair and replace removed or damaged pavement and sidewalks as specified in Section 02845 – Pavement Repair and Resurfacing.
- D In unpaved areas, grade surface as uniform slope to natural grade as indicated on the Drawings. Provide minimum of four inches (4 in) of topsoil and seed according to requirements of Section 02910 – Hydromulch Seeding or Section 02915 – Sodding, as required.

END OF SECTION



SECTION 02605

CAST-IN-PLACE INLETS, JUNCTION BOXES, HEADWALLS AND WINGWALLS

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Cast-in-place inlets for storm sewers, including cast iron frame and plate or grate
- B Cast-in-place headwalls including wingwalls for storm sewers.
- C Cast-in-place junction box with lid or grate top

1.2 MEASUREMENT AND PAYMENT

A Unit Prices

- 1 Payment for cast-in-place inlets is on a unit price basis for each inlet installed.
- 2 Payment for cast-in-place headwalls including wingwalls is on a unit price basis for each headwall including wingwall installed.
- 3 Payment for cast-in-place junction box with lid or grate top is on a unit price basis for each junction box installed.
- 4 Payment for inlets, including wingwalls and junction boxes includes connection of lines and furnishing and installing frames, grates, rings and covers.
- 5 Refer to Section 01270 – Measurement and Payment for unit price procedures

B Stipulated Price (Lump Sum)

- 1 If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price

1.3 REFERENCES

- A CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment
2. Section 01330 – Submittal Procedures
3. Section 02125 – Excavation and Backfill for Utilities.
4. Section 02315 – Frames, Grates, Rings and Covers.
5. Section 03100 – Mortar.
6. Section 03300 – Structural Concrete.

1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.
- B. Submit shop drawings for approval of design and construction details for cast-in-place units which differ from units shown on the Drawings.
- C. Submit manufacturers' data and details for frames, grates, rings and covers.

1.5 QUALITY ASSURANCE

- A. Provide manufacturer's affidavits that material was manufactured in compliance with standards and Technical Specifications referenced in this Section.

PART II PRODUCTS

2.1 MATERIALS

- A. Concrete. Class A concrete with a minimum compressive strength of four thousand pounds per square inch (4000 psi) conforming to requirements of Section 03300 – Structural Concrete, unless otherwise indicated on the Drawings.
- B. Reinforcing Steel: Conform to requirements of Section 03300 – Structural Concrete
- C. Mortar and Hydraulic Cement – Conform to requirements of Section 03100 – Mortar
- D. Miscellaneous metals. Cast-iron frames, grates, rings and covers conforming to requirements of Section 02315 – Frames, Grates, Rings

and Covers

PART III EXECUTION

3.1 EXAMINATION

- A Verify lines and grades are correct.
- B Verify compacted subgrade shall support loads imposed by inlets, junction boxes, headwalls and wingwalls.

3.2 INSTALLATION

- A Construct units complete in place to dimensions, lines and grades as shown on the Drawings
- B Excavate in accordance with requirements of Section 02125 – Excavation and Backfill for Utilities.
- C Construct box section of inlets, junction boxes, headwalls and wingwalls of Class A concrete.
- D Forms required for both outside and inside faces of concrete inlet, junction box, headwall or wingwall walls, however, when nature of material excavated for inlet or junction box can be hand trimmed to smooth outside vertical face, outside forms may be omitted with approval of the Project Manager. When nature of material excavated for headwall or wingwall walls can be hand trimmed to a smooth backside vertical face, backside forms may be omitted with approval of the Project Manager.
- E Place reinforcing steel to conform to details shown on the Drawings. Provide positive means for holding steel cages in place during concrete placement. Welding of reinforcing steel is not permitted unless noted on the Drawings. A maximum variation in reinforcement position is plus or minus ten percent (10%) of wall thickness or plus or minus one-half inch ($\pm 1/2$ in), whichever is less. Regardless of variation, maintain a minimum cover of concrete over reinforcement as shown on the Drawings.
- F Chamfer exposed edges unless otherwise indicated on the Drawings

3.3 FINISHES

- A Cut off inlet or junction box leads neatly at inside face of inlet or junction box wall, or at outside face of headwall. Point up with mortar.

- B When box section of inlet or junction box complete, shape floor of inlet junction box with mortar to conform to detailed the Drawings
- C Finish all concrete surfaces in accordance with requirements of Section 03300 – Structural Concrete.

3.4 QUALITY CONTROL

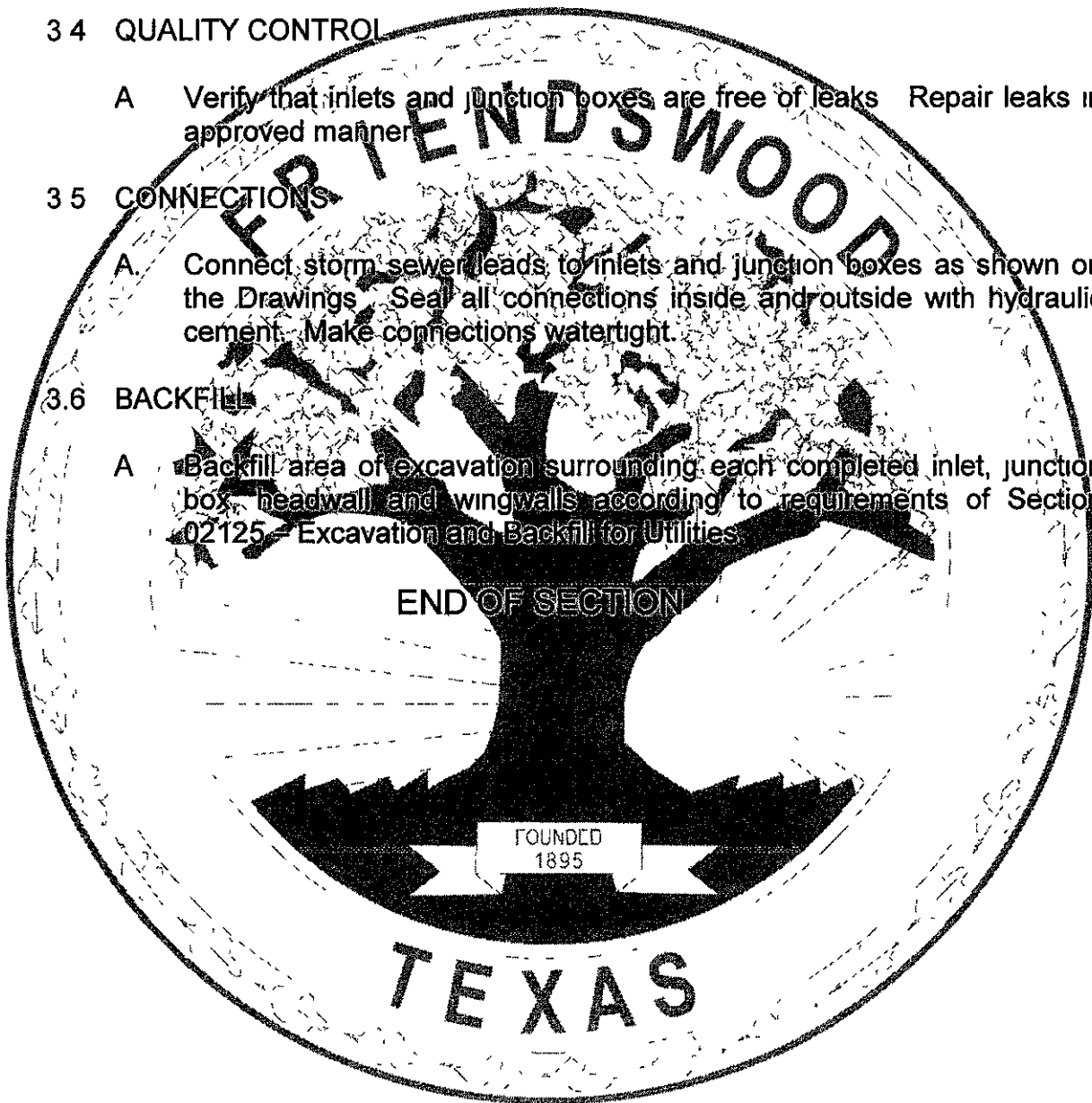
- A Verify that inlets and junction boxes are free of leaks. Repair leaks in approved manner.

3.5 CONNECTIONS

- A. Connect storm sewer leads to inlets and junction boxes as shown on the Drawings. Seal all connections inside and outside with hydraulic cement. Make connections watertight.

3.6 BACKFILL

- A Backfill area of excavation surrounding each completed inlet, junction box, headwall and wingwalls according to requirements of Section 02125 – Excavation and Backfill for Utilities.



SECTION 02610

PRECAST CONCRETE INLETS, JUNCTION BOXES, HEADWALLS AND WINGWALLS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Precast concrete inlets for storm sewers, including cast iron frame and plate or grate.
- B. Precast concrete headwalls and wingwalls for storm sewers
- C. Precast junction box with lid or grate top

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices

1. Payment for precast concrete inlets is on a unit price basis for each inlet installed.
2. Payment for precast concrete headwalls and wingwalls is on a unit price basis for each headwall and wingwall installed.
3. Payment for precast concrete junction box with lid or grate top is on a unit price basis for each junction box installed
4. Payment for inlets, junction boxes, headwalls, and wingwalls includes connection of lines and furnishing and installing frames, grates, rings and covers.
5. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum)

1. If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price.

1.3 REFERENCES

- A. ASTM – American Society for Testing and Materials

- 1 ASTM C76 – Standard Specification for Reinforced Concrete Culvert, Storm Drain and Sewer Pipe

B. CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment.
2. Section 01330 – Submittal Procedures.
3. Section 02125 – Excavation and Backfill for Utilities
4. Section 02315 – Frames, Grates, Rings and Covers.
5. Section 03100 – Mortar.

1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.
- B. Submit shop drawings for approval of design and construction details for precast concrete inlets, junction box headwalls and wingwalls. Precast units differing from standard designs shown on the Drawings shall be rejected unless shop drawing submittals are approved. Clearly show proposed substitution is equal or superior in every aspect to standard designs.
- C. Submit manufacturers' data and details for frames, grates, rings and covers

1.5 STORAGE AND SHIPMENT

- A. Store precast units on level blocking. Do not place loads until design strength is reached. Shipment of acceptable units may be made when twenty-eight day (28 D) strength requirements have been met

1.6 QUALITY ASSURANCE

- A. Provide manufacturer's affidavits that material was manufactured in compliance with standards and Technical Specifications referenced in this Section

PART II: PRODUCTS

2.1 MATERIALS

- A. **Concrete** Provide concrete for precast machine-made units meeting requirements of ASTM C76 regarding reinforced concrete, cement, aggregate, mixture and concrete test. A minimum twenty-eight day (28 D) compressive strength shall be four thousand pounds per square inch (4000 psi).
- B. **Reinforcing Steel:** Place reinforcing steel to conform to details shown on the Drawings and as follows.
1. Provide positive means for holding steel cages in place throughout production of concrete units. A maximum variation in reinforcement position is plus or minus ten percent ($\pm 10\%$) of wall thickness or plus or minus one-half inch ($\pm 1/2$ in), whichever is less. Regardless of variation, maintain a minimum cover of concrete over reinforcement as shown on the Drawings.
 2. Welding of reinforcing steel is not permitted unless noted on the Drawings.
- C. **Mortar and Hydraulic Cement:** Conform to requirements of Section 03100 – Mortar.
- D. **Miscellaneous Metal:** Cast-iron frames and plates conforming to requirements of Section 02315 – Frames, Grates, Rings and Covers.

2.2 SOURCE QUALITY CONTROL

- A. **Tolerances:** Allowable casting tolerances for concrete units are plus or minus one-quarter inch ($1/4$ in) from dimensions shown on the Drawings. Concrete thickness in excess of that required shall not constitute cause for rejection provided that excess thickness does not interfere with proper jointing operations.
- B. **Precast Unit Identification:** Mark date of manufacture and name or trademark of manufacturer clearly on inside of inlet, headwall or wingwall.
- C. **Rejection.** Precast units rejected for non-conformity with these specifications and for following reasons

1. Fractures or cracks passing through shell, except for single end

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crack that does not exceed depth of joint

2. Surface defects indicating honeycombed or open texture
 3. Damaged or misshaped ends, where damage would prevent making satisfactory joint.
- D. Replacement: Immediately remove rejected units from the Work site and replace with acceptable units.
- E. Repairs: Occasional imperfections resulting from manufacture or accidental damage may be repaired if, in opinion of the Project Manager, repaired units conform to requirements of these specifications.

PART III EXECUTION

3.1 EXAMINATION

- A. Verify lines and grades are correct.
- B. Verify compacted subgrade shall support loads imposed by inlets, junction boxes, headwalls and wingwalls.

3.2 INSTALLATION

- A. Install units complete in place to dimensions, lines and grades as shown on the Drawings.
- B. Excavate in accordance with requirements of Section 02125 - Excavation and Backfill for Utilities.
- C. Bed precast concrete units on foundations of firm, stable material shaped to conform to shape of unit bases.
- D. Provide adequate means to lift and place concrete units without damage.

3.3 FINISHES

- A. Use hydraulic cement to seal joints, fill lifting holes and as otherwise required
- B. When box section of inlet or junction box has been completed, shape floor of inlet or junction box with mortar to conform to the Drawing details.

- C. Adjust cast iron inlet plate frames to line, grade and slope shown on the Drawings. Grout frame in place with mortar conforming to Section 03100 – Mortar.

3.4 QUALITY CONTROL

- A. Verify that inlets and junction boxes are free of leaks. Repair leaks in approved manner.

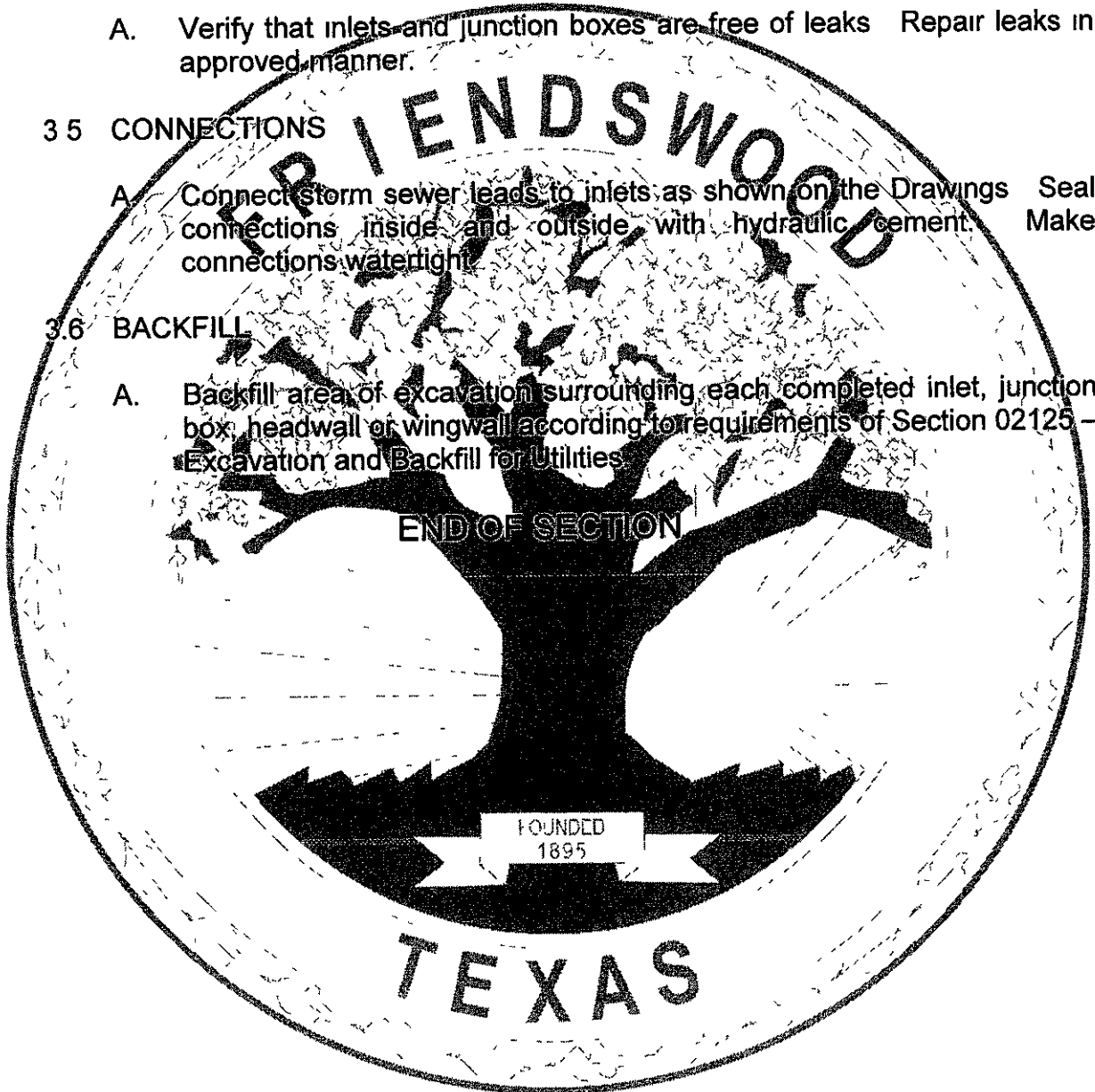
3.5 CONNECTIONS

- A. Connect storm sewer leads to inlets as shown on the Drawings. Seal connections inside and outside with hydraulic cement. Make connections watertight.

3.6 BACKFILL

- A. Backfill area of excavation surrounding each completed inlet, junction box, headwall or wingwall according to requirements of Section 02125 – Excavation and Backfill for Utilities.

END OF SECTION



SECTION 02615

CONCRETE BRICK MANHOLES FOR STORM SEWERS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Concrete Brick masonry Work in utility construction for permanent or temporary installation of storm sewer manholes or vaults.
- B Concrete Brick masonry in repair and rehabilitation of storm sewer lines and associated structures.

1.2 MEASUREMENT AND PAYMENT

A Unit Prices

- 1 Payment for concrete brick manholes is on a unit price basis for each manhole installed.
- 2 No payment shall be made for concrete brick masonry work for repair and rehabilitation of storm water lines. Include payment in the unit price for applicable structure section.
- 3 Refer to Section 01270 – Measurement and Payment for Unit Price Procedures.

B Stipulated Price (Lump Sum)

- 1 When Contract is Stipulated Price Contract, payment for Work in this Section is included in Total Stipulated Price.

1.3 REFERENCES

A ASTM – American Society for Testing and Materials.

- 1 ASTM D698 – Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600kN-m/m³)).

B City of Friendswood Technical Specifications

- 1. Section 01270 – Measurement and Payment

- 2 Section 01330 – Submittal Procedures
- 3 Section 02120 – Excavation and Backfill for Structures
4. Section 02315 – Frame, Grates, Rings and Covers
- 5 Section ~~02905 – Topsoil~~
6. Section 02910 – Hydromulch Seeding
7. Section 02915 – Sodding
8. Section 03100 – Mortar
9. Section 03300 – Structural Concrete

1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures
- B. Submit certifications required by Section 03100 – Mortar
- C. Submit certifications required by this Section

1.5 HANDLING AND STORAGE

- A. Handle and store concrete brick to prevent damage.
- B. Store concrete brick and mortar mix off ground and keep dry. Cover mortar mix to protect from weather.

1.6 QUALITY ASSURANCE

- A. Provide manufacturer's affidavits that material was manufactured in compliance with standards referenced in this section

PART II. PRODUCTS

2.1 CONCRETE BRICK MASONRY UNITS

- A. Concrete manhole bricks.

- 1 Concrete brick masonry units conforming to requirements of

this Section.

2.2 MORTAR

- A Conform to requirements of Section 03100 – Mortar.

2.3 CONCRETE AND REINFORCING STEEL

- A Conform to requirements of Section 03300 – Structural Concrete
- B Provide Class A concrete with a minimum compressive strength of 4000 psi unless otherwise indicated on the Drawings.

PART III EXECUTION

3.1 EXAMINATION

- A Verify lines and grades are correct.
- B Determine if subgrade, when scarified and recompactd, can be compacted to be ninety-five percent (95%) of a maximum Standard Proctor Density according to ASTM D698 prior to placement of foundation material and base section. When it cannot be compacted to that density, moisture condition subgrade until that density is reached or treat as unstable subgrade.
- C Concrete brick manhole to be used only as indicated on the Drawings or as approved by the City.
- D Do not build manholes of concrete brick in or under paving, in rights of way, easements, on any public land or on private land that may be deeded over to or under City maintenance in the future.
- E Do not build manholes in ditches, swales or drainage ways unless approved by the Project Manager.

3.2 MANHOLES

- A Construct manholes to dimensions shown on the Drawings. Commence construction as soon as possible after pipes or boxes are laid. On monolithic storm sewers, construct manholes at same time storm sewer is being constructed.
- B Unstable Subgrade Treatment When unstable subgrade is encountered, notify the Project Manager for examination of subgrade to

determine if subgrade has heaved upwards after being excavated. When heaving has not occurred, over-excavate subgrade to allow for twenty-four inch (24 in) thick layer of crushed stone wrapped in filter fabric as foundation material under manhole base. When there is evidence of heaving, provide pile-supported concrete foundation, as detailed on the Drawings, under manhole base.

- C. Construct manhole on concrete slab in accordance with requirements of this Section.
- D. The top and throat section on curb style inlets shall be concrete and as per the City of Friendswood Standard Details Sheet.
- E. Concrete brick manholes and inlets shall be grouted inside and out, leaving no trace of brick, and as per Section 3100 – Mortar.

3.3 PIPE CONNECTIONS

- A. Use non-shrink grout to seal pipe or box connections to manholes unless otherwise shown on the Drawings.

3.4 FRAME AND COVER

- A. Install frame and cover in accordance with Section 02315 – Frame, Grates, Rings and Covers.

3.5 BACKFILL

- A. Place and compact backfill materials in area of excavation surrounding manholes in accordance with requirements of Section 02120 – Excavation and Backfill for Structures. Use embedment zone backfill material, as shown in the City of Friendswood Standard Details over each pipe connected to manhole. Provide trench zone backfill, above embedment zone backfill for each pipe or box connected to manhole.
- B. Backfill under existing storm sewer up to springline of pipe or mid-point of boxes with Class B concrete or flowable fill in accordance with Section 03300 – Structural Concrete.
- C. In unpaved areas, provide positive drainage away from manhole frame to natural grade. Provide a minimum of four inches (4 in) of topsoil conforming to requirements of Section 02905 – Topsoil. Seed in accordance with Section 02910 – Hydromulch Seeding or sod disturbed areas in accordance with Section 02915 – Sodding.

3.6 QUALITY CONTROL

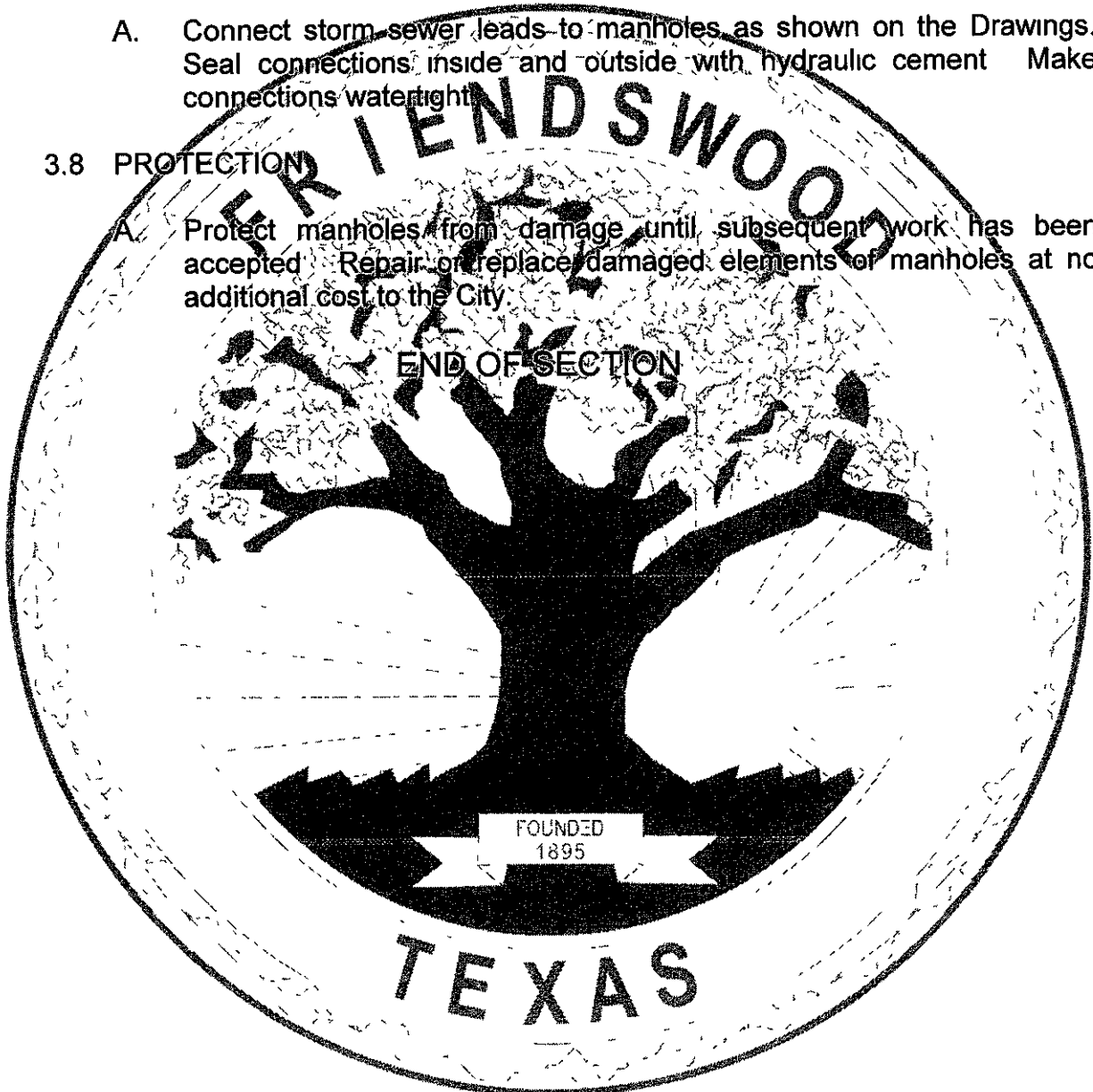
- A. Visually inspect manhole for leakage. Repair leaks in an approved manner.

3.7 CONNECTIONS

- A. Connect storm sewer leads to manholes as shown on the Drawings. Seal connections inside and outside with hydraulic cement. Make connections watertight.

3.8 PROTECTION

- A. Protect manholes from damage until subsequent work has been accepted. Repair or replace damaged elements of manholes at no additional cost to the City.



SECTION 02720

LIME-STABILIZED BASE SUBGRADE

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

A Foundation course of lime-stabilized subgrade material.

- 1 Application of lime slurry to subgrade
- 2 Mixing, compaction and curing of lime slurry, water and subgrade into a stabilized foundation.

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices:

- 1 Measurement and payment for lime-stabilized subgrade is on a square yard basis compacted in place to proper density. Separate measurement shall be made for each required thickness of subgrade course.

a. Limits of measurement shall be actual pavement replaced, but not beyond the maximum pavement replacement limits shown on the Drawings. Limits for measurement shall be extended to include installed lime-stabilized subgrade material that extends two feet (2 Ft) beyond outside edge of pavement to be replaced, except where proposed pavement section shares common longitudinal or transverse edge with existing pavement section. No payment shall be made for lime-stabilized subgrade in areas beyond these limits.

b. Limits of measurement and payment shall match pavement replacement limits shown on the Drawings, except as noted in Paragraph 1.2 A 1.a or as approved by the Project Manager.

- 2 Measurement and payment for lime is by ton of two thousand pounds (2000 Lbs) dry weight basis. Calculate weight of dry solids for lime slurry based on percentage by dry weight solids.

3. Refer to Section 01270 – Measurement and Payment for unit price procedures

B. Stipulated Price (Lump Sum):

1. If Contract is Stipulated Price Contract, payment for Work in this Section is included in Total Stipulated Price.

1.3 DEFINITION

- A. Moist Cure:** Curing soil and lime to obtain optimum hydration
- B. One Thousand Foot (1000 Ft) Roadway Section:** One thousand feet (1000 Ft) per lane width or approximately five hundred square yards (500 Sy) of compacted subgrade for other than full-lane-width roadway sections

1.4 REFERENCES

A. ASTM – American Society for Testing and Materials

1. ASTM D698 – Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lb/ft³ (600 kN-m³))
2. ASTM D2922 – Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
3. ASTM D4318 – Standard Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils.

B. CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment.
2. Section 01330 – Submittal Procedures.
3. Section 01470 – Testing Laboratory Services.
4. Section 01475 – Quality Control Testing Procedures.

C. TxDOT – Texas Department of Transportation

1. TxDOT Tex-101-E (Part III) – Preparation of Soil and Flexible Base Material for Testing. TxDOT Tex-140-E – Measuring Thickness of Pavement Layer.

2 TxDOT Tex-600-J – Sampling and Testing Hydrated Lime, Quicklime and Commercial Lime Slurry.

1.5 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures.
- B Submit certification that hydrated lime, quicklime or commercial lime slurry complies with the specifications.
- C. Submit weight tickets, certified by supplier, with each bulk delivery of lime to work site.

1.6 DELIVERY, STORAGE AND HANDLING

- A Bagged lime shall bear manufacturer's name, product identification and certified weight. Bags varying more than five percent (5%) of certified weight may be rejected; average weight of fifty (50) random bags in each shipment shall not be less than certified weight.
- B Store lime in weatherproof enclosures. Protect lime from ground dampness.

1.7 QUALITY ASSURANCE

- A. Provide manufacturer's affidavits that material was manufactured in compliance with standards referenced in this Section.

PART II: PRODUCTS

2.1 WATER

- A Use clean, clear water, free from oil, acids, alkali or vegetation

2.2 LIME

- A Type A – Hydrated Lime Dry material consisting essentially of calcium hydroxide or mixture of calcium hydroxide and an allowable percentage of calcium oxide as listed in chemical composition chart
- B Type B – Commercial Lime Slurry Liquid mixture consisting essentially of lime solids and water in slurry form. Water or liquid portion shall not contain dissolved material in sufficient quantity to be injurious or objectionable for purpose intended.

C Type C – Quicklime. Dry material consisting essentially of calcium oxide. Furnish quicklime in either of the following grades:

- 1 Grade DS. Pebble quicklime of gradation suitable for use in preparation of slurry for wet placing.
2. Grade S: Finely-graded quicklime for use in preparation of slurry for wet placing. Do not use grade S quicklime for dry placing if dry placing is permitted.

D. Conform to the requirements in Table 4.1 – QUICKLIME PROPERTY SPECIFICATIONS in this Section.

E. Deliver lime slurry to job site as commercial lime or prepare at job site by using hydrated lime or quicklime. Provide slurry free of liquids other than water and of consistency that can be handled and uniformly applied without difficulty.

F. Lime containing magnesium hydroxide is prohibited.

G. Lime containing fly ash is prohibited.

2.3 SOIL

A. Soil to receive lime treatment may include borrow or existing subgrade material, existing pavement structure or combination of all three (3). Where existing pavement or base material is encountered, pulverized or scarify material so that one hundred percent (100%) of sampled material passes two-inch (2 in) sieve.

PART III: EXECUTION

3.1 EXAMINATION

A. Verify compacted subgrade shall support imposed loads.

B. Verify subgrade lines and grades.

3.2 PREPARATION

A. Complete backfill of utilities prior to stabilization.

B. Cut material to bottom of subgrade using an approved cutting and pulverizing machine meeting following requirements.

1. Cutters accurately provide smooth surface over entire width of

cut to plane of secondary grade.

2. Provide cut to depth as specified or shown in the Drawings.

- C. Alternatively, scarify or excavate to bottom of stabilized subgrade. Remove material or windrow to expose secondary grade. Obtain uniform stability.
- D. Correct wet or unstable material below secondary grade by scarifying, adding lime and compacting as directed by the Project Manager.
- E. Pulverize existing material so that one hundred percent (100%) passes a one and three-quarters inch (1-3/4 in) sieve.

3.3 LIME SLURRY APPLICATION

- A. Apply slurry with distributor truck equipped with an agitator to keep lime and water in consistent mixture. Make successive passes over measured section of roadway to attain proper moisture and lime content. Limit spreading to an area where preliminary mixing operations can be completed on same working day.
- B. Minimum lime content shall be six percent (6%) of dry unit weight of subgrade as determined by ASTM D698.

3.4 PRELIMINARY MIXING

- A. Use approved single-pass or multiple-pass rotary speed mixers to mix soil, lime and water to required depth. Ensure homogeneous friable mixture free of clods and lumps.
- B. Shape mixed subgrade to final lines and grades.
- C. Eliminate following operations and final mixing if pulverization requirements of Paragraph 3.5 C can be met during preliminary mixing.
 - 1. Seal subgrade as precaution against heavy rainfall by rolling lightly with light pneumatic rollers.
 - 2. Cure soil lime material for twenty-four hours (24 Hrs) to seventy-two hours (72 Hrs) or as required to obtain optimum hydration. Keep subgrade moist during cure.

3.5 FINAL MIXING

- A. Use approved single-pass or multiple-pass rotary speed mixers to

uniformly mix cured soil and lime to required depth.

- B Add water to bring moisture content of soil mixture to optimum or above.
- C Mix and pulverize until all material passes one and three-quarters inch sieve (1-3/4 In); a minimum of eighty-five percent (85%), excluding non-slacking fractions, passes three-quarters inch (3/4 In) sieve; and a minimum of sixty percent (60%) excluding non-slacking fractions passes No. 4 sieve. Test according to TxDOT Tex-101-E, Part III using dry method. Sieve analysis shall conform to the requirements of TABLE 42 – LIME-STABILIZED SUBGRADE SIEVE ANALYSIS in this Section
- D Shape mixed subgrade to final lines and grades
- E Do not expose hydrated lime to open air for six hours (6 Hrs) or more during interval between application and mixing. Avoid excessive hydrated lime loss due to washing or blowing.

3.6 COMPACTION

- A. Aerate or sprinkle to attain optimum moisture content to three percent (3%) above optimum, as determined by ASTM D698 on material sample from roadway after final mix with lime
- B Start compaction immediately after final mixing
- C. Spread and compact in two (2) or more equal layers where total compacted thickness is greater than equipment manufacturer's recommended range of mixing and compaction.
- D. Compact with approved heavy pneumatic or vibrating rollers or combination of tamping rollers and light pneumatic rollers. Begin compaction at bottom and continue until entire depth is uniformly compacted.
- E Do not allow stabilized subgrade to mix with underlying material. Correct irregularities or weak spots immediately by replacing material and re-compacting
- F Compact subgrade to a minimum density of ninety-five percent (95%) of a maximum dry density, according to ASTM D698, at moisture content of optimum to three percent (3%) above optimum, unless otherwise indicated on the Drawings

- G. Seal with approved light pneumatic tired rollers. Prevent surface hair line cracking. Rework and recompact at areas where hairline cracking develops.

3.7 CURING

- A. Moist cure for a minimum of three days (3 D) before placing base or surface course or opening to traffic. Subgrade may be opened to traffic after two days (2 D) when adequate strength has been attained to prevent damage. Restrict traffic to light pneumatic rollers or vehicles weighing less than ten tons (10 Tn).

- B. Keep subgrade surface damp by sprinkling. Roll with light pneumatic roller to keep surface knit together.

- C. Place base or surface within fourteen days (14 D) after final mixing and compaction. Restart compaction and moisture content of base material when time is exceeded.

3.8 TOLERANCES

- A. Completed surface smooth and conforming to typical section and established lines and grades.

- B. Top of compacted surface. Plus or minus one-quarter inch ($\pm 1/4$ In) in cross section or in sixteen feet (16 Ft) of length.

- C. Depth of lime stabilization shall be a minimum specified depth for each one thousand foot (1000 Ft) roadway section, unless otherwise noted on the Drawings.

3.9 FIELD QUALITY CONTROL

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- A. Testing shall be performed under provisions of Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures.

- B. Test soils, lime and mixtures as follows:

1. Tests and analysis of soil materials shall be performed in accordance with ASTM D4318, using the wet preparation method.
2. Sampling and testing of lime slurry shall be in accordance with TxDOT Tex-600-J, except using a lime slurry cup.

- 3 Sample mixtures of hydrated lime or quicklime in slurry form shall be tested to establish compliance with the specifications
4. Moisture-density relationship shall be established on material sampled from roadway, after stabilization with lime and final mixing, in accordance with ASTM D698, Moist preparation Method

C. In-place depth shall be evaluated for each one thousand foot (1000 Ft) roadway section and determined in accordance with TxDOT Tex-140-E in hard excavated holes. For each one thousand foot (1000 Ft) section, three (3) phenolphthalein tests shall be performed. Average stabilization depth for one thousand foot (1000 Ft) section shall be based on average depth for three (3) tests.

D Perform compaction testing in accordance with ASTM D2922. Three (3) tests shall be performed for each one thousand foot (1000 Ft) roadway section.

E. Pulverization analysis shall be performed as required by Paragraph 3.5.C on material sampled during mixing of each production area. Three (3) tests shall be performed per six hundred foot (600 Ft) roadway section or a minimum one (1) for each day of production

3 10 REWORK OF FAILED SECTIONS

A Rework sections that do not meet specified thickness.

B. Perform the following steps when more than seventy-two hours (72 Hrs) have lapsed since completion of compaction:

1. Moist cure for a minimum of three days (3 D) after compaction to required density.
2. Add lime at rate of twenty-five percent (25%) of specified rate at no additional cost to the City.
- 3 Moisture density test of reworked material must be completed by laboratory before field compaction testing can be completed.

3 11 PROTECTION

A Maintain stabilized subgrade to lines and grades and in good condition until placement of base or surface course. Protect asphalt membrane from being picked up by traffic

B Repair defects immediately by replacing material to full depth

PART IV: TABLES

4.1 QUICKLIME PROPERTY SPECIFICATIONS

CHEMICAL COMPOSITION	TYPE		
	A	B	C
Active lime content, % by weight $\text{Ca(OH)}_2 + \text{CaO}$	90.0 min. ¹	87.0 min. ²	--
Unhydrated lime content, % by weight CaO	5.0 max.	--	87.0 min
Free water content, % by weight H_2O	5.0 max.	--	--
SIZING			
Wet Sieve, as % by weight residue retained			
No. 6	0.2 max.	0.2 max. ²	8.0 max. ³
No. 30	4.0 max.	4.0 max.	--
Dry Sieve, as % by weight residue retained			
1-inch	--	--	0.0
1/2-inch	--	--	10.0 max
NOTES 1 - Maximum five percent (5%) by weight CaO shall be allowed in determining total active lime content. 2 - Maximum solids content of slurry. 3 - Total active lime content, as CaO, in material retained on No. 6 sieve shall not exceed two percent (2%) by weight of original Type C Lime.			

4.2 LIME-STABILIZED SUBGRADE SIEVE ANALYSIS

SIEVE SIZE	PERCENT PASSING
1 3/4" Sieve	100%
3/4" Sieve	85%
Number 4 Sieve	60%

END OF SECTION

SECTION 02725

PORTLAND CEMENT-STABILIZED BASE SUBGRADE

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Foundation course of Portland cement-stabilized natural subgrade material

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices

1. Payment for Portland cement-stabilized subgrade is on a square yard basis, compacted in place to proper density. Separate measurement shall be made for each different required thickness of subgrade course.

a. Limits of measurement shall be actual pavement replaced, but not beyond the maximum pavement replacement limits shown on the Drawings. Limits for measurement shall be extended to include installed Portland cement-stabilized subgrade material that extends two foot (2 Ft) beyond outside edge of pavement to be replaced except where proposed pavement section shares common longitudinal or transverse edge with existing pavement section. No separate payment shall be made for Portland cement-stabilized subgrade beyond these limits.

b. Limits of measurement and payment shall match pavement replacement limits shown on the Drawings, except as noted in Paragraph 1.2.A.1.a or as approved by the Project Manager

2. Payment for Portland cement is by the ton of two thousand pounds (2000 Lbs) dry-weight basis
3. Refer to Section 01270 – Measurement and Payment for unit price procedures

B Stipulated Price (Lump Sum)

1. If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulate Price.

1 3 REFERENCES

A ASTM – American Society for Testing and Materials.

1. ASTM C150 – Standard Specification for Portland Cement.
2. ASTM D558 – Standard Test Method for Moisture-Density Relations of Soil-Cement Mixtures
3. ASTM D698 – Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12.4 ft-lbf/ft²).
4. ASTM D2922 – Standard Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
5. ASTM D4318 – Standard Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils.

B CFTS – City of Friendswood Technical Specifications.

1. Section 01270 – Measurement and Payment
2. Section 01330 – Submittal Procedures.
3. Section 01470 – Testing Laboratory Services
4. Section 01475 – Quality Control Testing Procedures.

1 4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.
- B. Submit certification that Portland cement complies with these Technical Specifications

PART II: PRODUCTS

2 1 WATER

- A. Water: clean, clear and free from oil, acids, alkali or organic matter

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2.2 PORTLAND CEMENT

- A. ASTM C150 Type I; bulk or sacked

2.3 SOIL

- A. Provide soil consisting of approved material free from vegetation or other objectionable matter encountered in existing roadbed

2.4 TESTS

- A. Testing shall be performed under provisions of Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures.
- B. Tests and analysis of soil materials shall be performed in accordance with ASTM D4818.
- C. Soil shall be evaluated to establish ratio of cement to soil to obtain desired stability. Normal range is six percent (6%) to ten percent (10%) by weight.
- D. The percentage of moisture in soil, at time of cement applications, shall be determined by ASTM D559. Moisture shall not be allowed to exceed quantity that shall permit uniform, complete mixture of soil and cement during dry mixing operations nor specified optimum moisture content for soil cement mixture, as determined.

PART III: EXECUTION

3.1 EXAMINATION

- A. Verify compacted subgrade is ready to support imposed loads
- B. Verify subgrade lines and grades are correct

3.2 EQUIPMENT

- A. Apply Portland cement treatment with machine or combination of machines and auxiliary equipment to produce specified results. Mixing may be accomplished by multi-pass traveling mixing plant or single-pass traveling mixing plant. Provide sufficient equipment to enable continuous prosecution of work

3.3 PREPARATION

- A Backfill for utilities below future grade
- B Verify subgrade is firm and able to support, without displacement, construction equipment at specified density. Correct soft or yielding subgrade and stabilize by scarifying and aerating or by adding cement and compacting to uniform stability.
- C Grade, shape and compact, as required, to allow construction of Portland cement treatment for in-place materials to lines, grades, thickness and typical cross section on the Drawings. Remove unsuitable soil or material and replace with acceptable material.
- D Pulverize soil so that at completion of moist-mixing, one hundred percent (100%) by dry weight passes one inch (1 In) sieve and a minimum of eighty percent (80%) passes a No. 4 sieve, exclusive of gravel or stone retained on these sieves. Pulverize existing bituminous wearing surfaces so that one hundred percent (100%) shall pass two inch (2 In) sieve.

3.4 MIXING

- A Do not place and mix cement when the ambient temperature is below forty degrees Fahrenheit (40° F) and falling. Place base when ambient temperature when taken in the shade and away from artificial heat is above thirty-five degrees Fahrenheit (35° F) and rising.
- B Spread cement uniformly on soil at rate specified by laboratory. When bulk cement spreader is used, position it by string lines or other approved method to ensure uniform distribution of cement. Apply cement only in area where operations can be continuous and completed in daylight, within one hour (1 Hr) of application. Amount of moisture in soil at time of cement placement shall not exceed quantity that shall permit uniform mixture of soil and cement during dry mixing operations. Do not exceed specified optimum moisture content for soil-cement mixture.
- C Do not allow equipment other than that used in spreading and mixing, to pass over freshly spread cement until it is mixed with soil.
- D Dry mix cement with soil after cement application. Continue mixing until cement has been sufficiently blended with soil to prevent formation of cement balls when water is applied. Mixture of soil and cement that has not been compacted and finished shall not remain undisturbed for more than thirty minutes (30 Min)

- E Immediately after dry mixing is complete, uniformly apply water as necessary and incorporate it into mixture. Pressurized equipment must provide adequate supply to ensure continuous application of required amount of water to sections being processed within three hours (3 Hrs) of cement application. Ensure proper moisture distribution at all times. After last increment of water has been added, continue mixing until thorough and uniform mix has been obtained.
- F. Ensure percentage of moisture in mixture, based on dry weights, is within two (2) percentage points of specified optimum moisture content prior to compaction. When un-compacted soil-cement mixture is wetted by rain indicating that average moisture content exceeds tolerance given at the time of final compaction, reconstruct entire section in accordance with this Section at no additional cost to the City.

3.5 COMPACTION

- A Prior to beginning compaction, ensure mixture is in loose condition for its full depth. Uniformly compact the loose mixture to specified density, lines and grades.
- B After soil and cement mixture is compacted, apply water uniformly as needed and mix thoroughly. Reshape surface to required lines, grades and cross section and lightly scarify to loosen imprints left by compacting or shaping equipment.
- C Roll resulting surface with pneumatic-tired roller and "skin" surface with power grader. Thoroughly compact mixture with pneumatic roller, adding small increments of moisture, as needed. When aggregate larger than No. 4 sieve is present in mixture, make one (1) complete coverage of section with flatwheel roller immediately after skinning operation. When approved by the Project Manager, surface finishing methods may be varied from this procedure, provided dense uniform surface, free of surface compaction planes, is produced. Maintain moisture content of surface material at its specified optimum during finishing operations. Compact and finish surface within a period not to exceed two hours (2 Hrs), to produce smooth, tight surface, free of cracks, ridges or loose material, conforming to crown, grade and line shown on the Drawings within the period not to exceed two hours (2 Hrs)

3.6 CONSTRUCTION JOINTS

- A At end of each day's construction, form straight transverse construction joint by cutting back a total width of completed work to form true two

inch (2 In) depth of vertical face free of loose and shattered material. Construct cement treatment for large wide areas in series of parallel lanes of convenient length and width approved in advance by the Project Manager

3.7 CURING

- A Moist cure for a minimum of three days (3 D) before placing base or surface course or opening to traffic. When open, restrict traffic to light pneumatic rollers or vehicles weighing less than ten tons (10 Tn).
- B Keep subgrade surface damp by sprinkling. Roll with light pneumatic roller to keep surface knit together.
- C Place base and surface within fourteen days (14 D) after the final mixing and compaction, unless prior approval is obtained by the Project Manager.

3.8 TOLERANCES

- A Completed surface: smooth and conforming to typical section and established lines and grades.
- B Top of compacted surface: Plus or minus one-quarter inch ($\pm 1/4$ In) in cross section or in sixteen feet (16 Ft) of length.

3.9 FIELD QUALITY CONTROL

- A Testing shall be performed under provision of Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures
- B In-place density shall be determined in accordance with ASTM D2922 or ASTM D698. A minimum of three (3) tests shall be taken for each one thousand feet (1000 Ft) per lane of roadway or five hundred square yards (500 Sy) of embankment.

3.10 PROTECTION

- A Maintain stabilized subgrade to lines and grades and in good condition until placement of base or surface course.
- B Repair defects immediately by replacing material to full depth

END OF SECTION

SECTION 02805

CONCRETE PAVING

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Portland cement concrete paving.

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices

1. Payment for concrete paving is on a square yard basis. Separate pay items are used for each different required thickness of pavement.
2. Payment for concrete paving, high early strength, is on a square yard basis.
3. Measurement for utility projects: Match actual pavement replaced but no greater than a maximum pavement replacement limits shown on the Drawings.
4. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum)

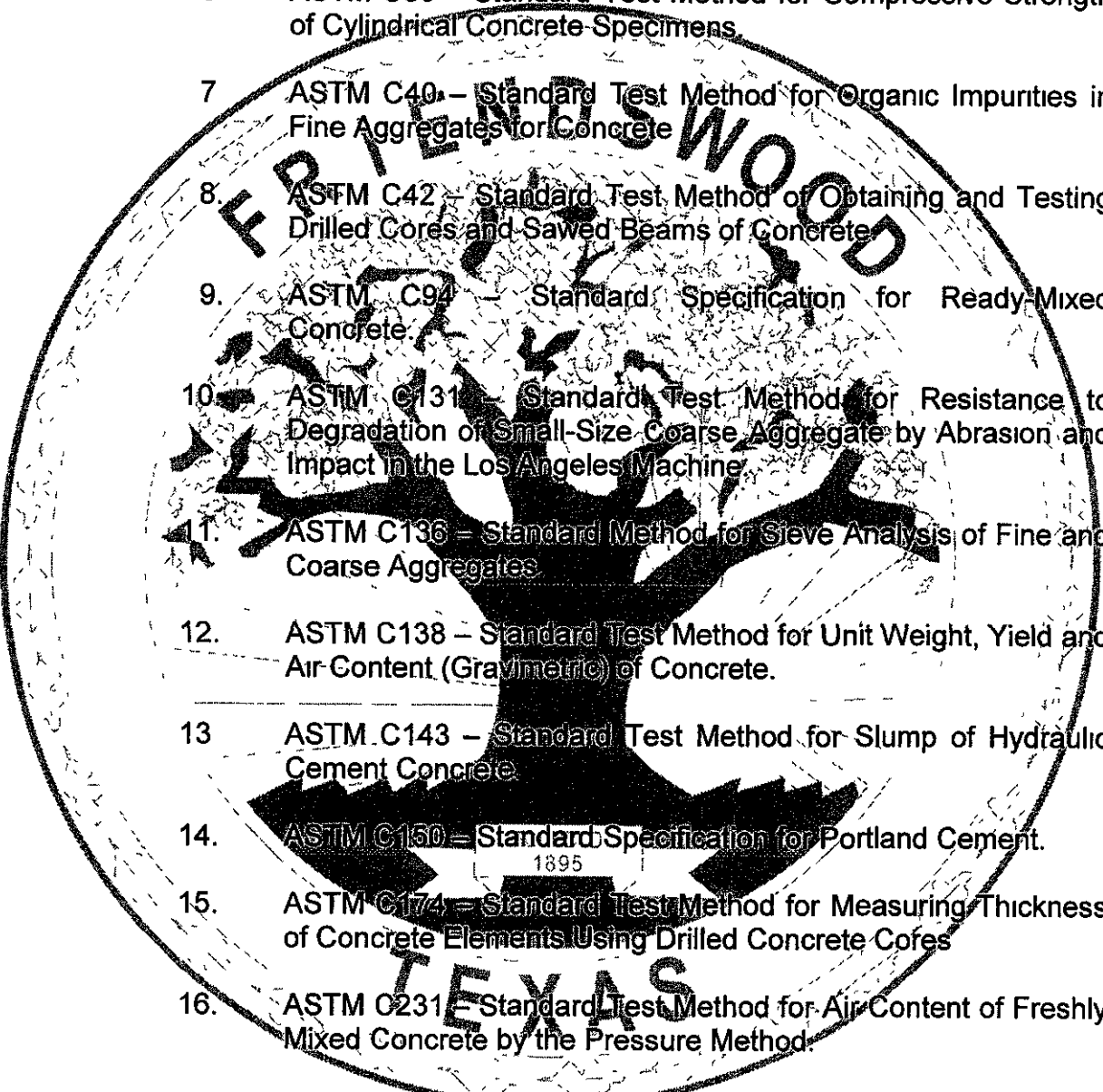
1. If Contract is Stipulated Price Contract, payment for Work in this Section is included in Total Stipulated Price.

1.3 REFERENCES

A. ASTM – American Standards for Testing and Materials

1. ASTM A82 – Standard Specification for Steel Wire, Plain, for Concrete Reinforcement
2. ASTM A185 – Standard Specifications for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement
3. ASTM A615 – Standard Specification for Deformed and Plain Billet – Steel Bars for Concrete Reinforcement

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4. ASTM C31 – Standard Practice for Making and Curing Concrete Test Specimens in the Field.
 5. ASTM C33 – Standard Specifications for Concrete Aggregates.
 6. ASTM C39 – Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.
 7. ASTM C40 – Standard Test Method for Organic Impurities in Fine Aggregates for Concrete.
 8. ASTM C42 – Standard Test Method of Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.
 9. ASTM C94 – Standard Specification for Ready-Mixed Concrete.
 10. ASTM C131 – Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
 11. ASTM C136 – Standard Method for Sieve Analysis of Fine and Coarse Aggregates.
 12. ASTM C138 – Standard Test Method for Unit Weight, Yield and Air Content (Gravimetric) of Concrete.
 13. ASTM C143 – Standard Test Method for Slump of Hydraulic Cement Concrete.
 14. ASTM C150 – Standard Specification for Portland Cement.
 15. ASTM C174 – Standard Test Method for Measuring Thickness of Concrete Elements Using Drilled Concrete Cores.
 16. ASTM C231 – Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
 17. ASTM C260 – Standard Specification for Air-Entraining Admixtures for Concrete.
 18. ASTM C494 – Standard Specification for Chemical Admixtures for Concrete.
 19. ASTM C618 – Standard Specification for Coal Fly Ash and Raw

or Calced Natural Pozzolan for use as a Mineral Admixture in Portland Cement Concrete.

B. CFTS – City of Friendswood Technical Specifications.

- 1 Section 01270 – Measurement and Payment.
2. Section 01330 – Submittal Procedures
3. Section 01470 – Testing Laboratory Services.
4. Section 01475 – Quality Control Testing Procedures.
5. Section 02835 – Concrete Pavement Curing.
6. Section 02840 – Concrete Pavement Joints.
7. Section 03200 – Reinforcing Steel.

C. TxDOT – Texas Department of Transportation

1. TxDOT Tex-203-F – Sand Equivalent Test
2. TxDOT Tex-406-A – Material Finer than 75 μ m (No. 200) Sieve In Mineral Aggregates (Decantation Test for Cement Aggregates).

1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.
- B. Submit proposed mix design and test data for each type and strength of concrete in the Work. Include proportions and actual flexural strength obtained from design mixes at required test ages.
- C. Submit for approval manufacturer's description and characteristics for mixing equipment, and for traveling form paver when proposed for use
- D. Submit manufacturer's certificates giving properties of reinforcing steel. Include certificate of compliance with ASTM A82. Provide specimens for testing when required by the Project Manager

1.5 HANDLING AND STORAGE

- A. Do not mix different classes of aggregate without written permission of the Project Manager

- B Class of aggregate being used may be changed before or during the Work with written permission of The Project Manager. When new class of aggregate is being used, it shall comply with this Technical Specification and shall be verified by the Project Manager
- C Reject segregated aggregate. Before using aggregate whose particles are separated by size, mix them uniformly to grading requirements.
- D Reject aggregates mixed with dirt, weeds or foreign matter.
- E Do not dump or store aggregate in roadbed.

1.6 DEFINITIONS

- A Batch — materials proportioned for concrete according to the APPROVED mix design and adjusted for moisture in aggregates. Batch targets shall be based on mixed design parameters, adjusted for moisture and stay within tolerance the Specifications for proportioning in accordance with ASTM C685.
- B. Cracks — any split, rip or tear that penetrates the surface of the finished concrete. Cracking or "solder cracks" shall not be considered under this Section. The following are types of cracking with clear definitions and remedies which shall be followed:
 - 1 Longitudinal Crack — cracks that mostly follow the centerline of the roadway. In a case where the line runs diagonal to the centerline, it shall be determined by using the rise/run method whether or not the crack is parallel to the centerline of the road way. Any crack that has a run greater than the rise (perpendicular to the centerline) shall be considered a longitudinal crack. If said crack proceeds beyond a construction or expansion joint, this shall be considered the same crack. All concrete that has longitudinal cracks shall be replaced with no exceptions, and new maintenance bond given to cover one year (1 Yr) from date of replacement of concrete
 - 2. Shrinkage Crack — cracks that are less than six hundredths inch (0.06 In) in width and no more than one-half inch (1/2 In) in depth shall be considered shrinkage cracks. No corrective action shall be required, but the length, width (at widest point) and depth (at widest point) shall be documented. At the one year (1 Yr) maintenance walkthrough, if any of these three (3) measurements have increased by ten percent (10%) or new shrinkage cracks have appeared in the same paving panel,

corrective action shall be taken as approved by the Director of Community Development. An extended maintenance bond may be required.

3. Stress Crack – cracks that are more than six hundredths inch (0.06 in) but less than one-tenth inch (0.1 in) in width and of varying depths shall be considered stress cracks. These types of cracks are caused by tensile stress on concrete. Length, width and depth stress cracks shall be documented as described in 1.7 B.2 in this Section. Corrective action shall be taken as approved by the Director of Community Development. An extended maintenance bond may be required.

4. Structural Crack – cracks greater than one-tenth inch (0.1 in) in width, no matter what depth, shall be considered structural cracks. These types of cracks are caused by severe tensile stress on concrete and concrete failure. All concrete with structural cracks shall be replaced with no exceptions, and new maintenance bond given to cover one (1) year from date of replacement of concrete.

C Joints

1. Control joint – shall either be a tooled or saw cut joint that shall control cracking of concrete paving. Control joints shall be spaced not greater than fifteen foot (15 Ft) intervals between expansion joints unless approved by the Project Manager.
2. Construction joint – shall end a placement of concrete at the end of or at the centerline of a paving section. All construction joints shall use keyways to facilitate tie in to adjacent concrete placement.
3. Expansion joint – shall end a paving panel or connect to existing pavement. Expansion joint shall use cedar wood material with a one inch (1 in) zip strip to allow for installation of sealant material. Dowels shall be imbedded as specified in the City of Friendswood Standard Detail Sheets. Expansion joints shall be placed not more than sixty feet (60 Ft) apart unless otherwise approved by the Project Manager.

- D. Paving Panel – defined as concrete paving from one (1) expansion/construction joint to the next expansion/construction joint in length and edge of paving/construction joint to the next edge of paving/construction joint. There shall be no full width monolithic paving or paving from edge of pavement to edge of pavement, if the placement

width exceeds fifteen feet (15 Ft), allowed at anytime

PART II: PRODUCTS

2.1 MATERIALS

A Portland Cement.

1. Sample and test cement to verify compliance with Standards of ASTM C150, Type I or Type III.
2. Bulk cement which meets referenced standards may be used when method of handling is approved by the Project Manager. When using bulk cement, provide satisfactory weighing devices.
3. Fly ash which meets standards of ASTM C618 may be used as mineral fill when method of handling is approved by the Project Manager.

B Water: Conform to requirements for water in ASTM C94.

C Coarse Aggregate: Crushed stone, gravel or combination thereof, which is clean, hard and durable, conforms to requirements of ASTM C33 and has abrasion loss not more than forty-five percent (45%) by weight when subjected to Los Angeles Abrasion Test (ASTM C131).

1. Maximum percentage by weight of deleterious substances shall not exceed values specified in TABLE 4.1 – DELETERIOUS SUBSTANCES in this Section.
2. Conform coarse aggregate (size 1-1/2 inch to No. 4 sieve) to requirements of ASTM C33. Use gradation within limits specified in TABLE 4.2 – COARSE AGGREGATE SIEVE ANALYSIS REQUIREMENTS when graded in accordance with ASTM C136.

D Fine Aggregate: Sand, manufactured sand or combination thereof, composed of clean, hard, durable, uncoated grains, free from loams or other injurious foreign matter. Conform fine aggregate for concrete to requirements of ASTM C33. Use gradation within TABLE 4.3 – FINE AGGREGATE SIEVE ANALYSIS REQUIREMENTS in this Section, limits when graded in accordance with ASTM C136

1. When subjected to color test for organic impurities (ASTM C40), fine aggregate shall not show color darker than standard

color Fine aggregate shall be subjected to Sand Equivalent Test (Tex-203-F). Sand equivalent value shall not be less than eighty (80), unless higher value is shown on the Drawings.

- E Mineral Filler: FLY ASH CAN ONLY BE USED WHEN DESIGN MIX HAS BEEN SUBMITTED AND APPROVED BY THE DIRECTOR OR DEPUTY DIRECTOR OF COMMUNITY DEVELOPMENT.** Type "C" or Type "F" fly ash of acceptable quality and meeting requirements of ASTM C618 may be used as mineral admixture in concrete mixture. When fly ash mineral filler is used, store and inspect in accordance with ASTM C618. Do not use fly ash in amounts in excess of twenty-five percent (25%) by weight of cementitious material in mix design. Cement content may be reduced when strength requirements can be met. Note: When fly ash is used, the term "cement" is defined as cement plus fly ash.
- F. Air Entraining Agent:** Furnish air entraining agent conforming to requirements of ASTM C260.
- G. Water Reducer:** Water reducing admixture conforming to requirements of ASTM C494 may be used when required to improve workability of concrete. Amount and type of admixture is subject to approval by the Project Manager.
- H. Reinforcing Steel:**
1. Provide new billet steel manufactured by open hearth process and conforming to ASTM A615, Grade 60. Store reinforcing steel to protect it from mechanical injury and rust. At time of placement, steel shall be free from dirt, scale, rust, paint, oil or other injurious materials.
 2. Cold bend reinforcing steel to shapes shown. Once steel has been bent, it may not be rebent.
 3. Provide wire fabric conforming to ASTM A82. Use fabric in which longitudinal and transverse wires have been electrically welded at points of intersection. Welds shall have sufficient strength to not be broken during handling or placing. Conform welding and fabrication of fabric sheets to ASTM A185.
 4. Reinforcing Steel shall conform with Section 03200 - Reinforcing Steel.

2.2 EQUIPMENT

- A Conform Equipment to requirements of ASTM C94

2.3 MIXING

- A Compressive strength shall be as specified using test specimens prepared in accordance with ASTM C94 and tested in accordance with ASTM C39. Determine and measure batch quantity of each ingredient, including water for batch designs and all concrete produced for the Work. Mix shall conform to these Technical Specifications and other requirements indicated on the Drawings.

- B Mix design to produce concrete which shall have compressive strength of two thousand seven hundred pounds per square inch (2700 psi) at seven days (7 D) and three thousand pounds per square inch (3000 psi) at twenty-eight days (28 D). Slump of concrete shall be at least three inches (3 In) but not more than five inches (5 In), when tested in accordance with ASTM C143.

1. Concrete pavement, including curb, curb and gutter and saw-tooth curb, shall contain at least five (5) sacks [ninety-four pounds (94 Lbs) per sack] of cement per cubic yard, with not more than six and one-half gallons (6-1/2 Gals) of water, net, per sack of cement (water-cement ratio maximum 0.57). Determine cement content in accordance with ASTM C138. Addition of mineral filler may be used to improve workability or plasticity of concrete to limits specified.

2. Coarse dry aggregate shall not exceed eighty-five percent (85%) of loose volume of concrete.

3. Add air-entraining admixture to ensure uniform distribution of agent throughout batch. Base air content of freshly mixed air-entrained concrete upon trial mixes with materials to be used in the Work, adjusted to produce concrete of required plasticity and workability. Percentage of air entrainment in mix shall be four percent (4%) plus or minus one and one-half percent ($\pm 1\frac{1}{2}\%$). Determine air content by testing in accordance with ASTM C231.

4. Use retardant when temperature exceeds ninety degrees Fahrenheit (90° F). Proportion as recommended by manufacturer. Use same brand as used for air-entraining agent. Add and batch material using same methods as used for air-entraining agent.

- C Use high early strength concrete pavement to limits shown on the Drawings. Design to meet following.

1. Concrete Mix. Compressive strength greater than or equal to three thousand pounds per square inch (3000 psi) at seventy-two hours (72 Hrs).
2. Cement: Minimum of seven (7) sacks of cement per cubic yard of concrete.
3. Water-Cement Ratio maximum of 0.45. Slump of concrete shall a maximum of five inches (5 in), when tested in accordance with ASTM C-143.
4. Other requirements for proportioning, mixing, execution, testing, etc. shall be in accordance with this Section

PART III: EXECUTION

3.1 EXAMINATION

- A Verify compacted base is ready to support imposed loads and meets compaction requirements.
- B Verify lines and grades are correct.

3.2 PREPARATION

- A Properly prepare, shape and compact each section of subgrade before placing forms, reinforcing steel or concrete. After forms have been set to proper grade and alignment, use subgrade planer to shape subgrade to its final cross section. Check contour of subgrade with template
- B Remove subgrade that shall not support loaded form. Replace and compact subgrade to required density.
- C After one inch (1 in) or more of consecutive rain, retest subgrade for compaction and moisture. Replace or scarify and compact, to achieve required density

3.3 EQUIPMENT

- A. Alternate equipment and methods, other than those required by this Section, may be used provided equal or better results shall be obtained. Maintain equipment for preparing subgrade and for finishing and

compacting concrete in good working order

B. Subgrade Planer and Template

- 1 Use subgrade planer with adjustable cutting blades to trim subgrade to exact section shown on the Drawings. Select planer mounted on visible rollers which ride on forms. Planer frame must have sufficient weight so that it shall remain on form and have strength and rigidity that, under tests made by changing support from wheels to center, planer shall not develop deflection of more than one-eighth inch (1/8 In). Tractors used to pull planer shall not produce ruts or indentations in subgrade. When slip form method of paving is used, operate subgrade planer on prepared track grade or have it controlled by electronic sensor system operated from string line to establish horizontal alignment and elevation of subbase.
- 2 Provide template for checking contour of subgrade. Template shall be long enough to rest upon side forms and have strength and rigidity that when supported at center, maximum deflection shall not exceed one-eighth inch (1/8 In). Fit template with accurately adjustable rods projecting downward at one foot (1 Ft) intervals. Adjust these rods to gauge cross sections of slab bottom when template is resting on side forms.

C. Machine Finisher. Provide power-driven, transverse finishing machine designed and operated to strike off and consolidate concrete. Machine shall have two (2) screeds accurately adjusted to crown of pavement and with frame equipped to ride on forms. Use finishing machine with rubber tires when it operates on concrete pavement.

D. Hand Finishing:

1. Provide mechanical strike and tamping template two feet (2 Ft) longer than width of pavement to be finished. Shape template to pavement section.
2. Provide two (2) bridges to ride on forms and span pavement for finishing expansion and control joints. Provide floats and necessary edging and finishing tools.

E Burlap Drag or transverse broom for Finishing Slab: Furnish four (4) plies of ten ounce (10 Oz) burlap material fastened to bridge to form continuous strip of burlap full width of pavement. Maintain contact of three foot (3 Ft) width of burlap material with pavement surface. Keep burlap drags clean and free of encrusted mortar.

F Vibrators Furnish mechanically-operated, synchronized vibrators mounted on tamping bar which rides on forms and hand-manipulated mechanical vibrators. Furnish vibrators with frequency of vibration to provide maximum consolidation of concrete without segregation.

G. Traveling Form Paver: Approved traveling form paver may be used in lieu of construction methods employing forms, consolidating, finishing and floating equipment. Meet requirements of this specification for subgrade, pavement tolerances, pavement depth, alignments, consolidation, finishing and workmanship. When traveling form paver does not provide concrete paving that meets compaction, finish and tolerance requirements of this Technical Specification, immediately discontinue its use and use conventional methods.

1. Equip traveling paver with longitudinal transangular finishing float adjustable to crown and grade. Use float long enough to extend across pavement to side forms or edge of slab.
2. Ensure that continuous deposit of concrete can be made at paver to minimize starting and stopping. Use conventional means of paving locations inaccessible to traveling paver or having horizontal or vertical curvature that traveling paver cannot negotiate.
3. Where the Drawings require tie bars for adjacent paving, securely tie and support bars to prevent displacement. Tie bars may be installed with approved mechanical bar inserter mounted on traveling form paver. Replace pavement in which tie bars assume final position other than that shown on the Drawings.

3.4 FORMS

A Side Forms: Use metal forms of approved shape and section. Preferred depth of form is equal to required edge thickness of pavement. Forms with depths greater or less than required edge thickness of pavement shall be permitted, provided difference between form depth and edge thickness is not greater than one inch (1 in), and further provided that forms of depth less than pavement edge are brought to required edge thickness by securely attaching wood or metal strips to bottom of form or by grouting under form. Bottom flange of form shall be same size as thickness of pavement. Aluminum forms are not allowed. Forms shall be approved by the Project Manager. Length of form sections shall be not less than ten feet (10 Ft) and each section shall provide for staking in position with not less than three (3)

pins Flexible or curved forms of wood or metal of proper radius shall be used for curves of two hundred foot (200 Ft) radius or less. Forms shall have ample strength and shall be provided with adequate devices for secure setting so that when in-place they shall withstand, without visible springing or settlement, impact and vibration of finishing machine. In no case shall base width be less than eight inches (8 In) for form eight inches (8 In) or more in height. Forms shall be free from warp, bends or kinks and shall be sufficiently true to provide straight edge on concrete. Top of each form section, when tested with straight edge, shall conform to requirements specified for surface of completed pavement. Provide sufficient forms for satisfactory placement of concrete. For short radius curves, forms less than ten feet (10 Ft) in length or curved forms may be used. For curb returns at street intersections and driveways, wood forms of good grade and quality may be used.

B Form Setting

1. Rest forms directly on subgrade. Do not shim with pebbles or dirt. Accurately set forms to required grade and alignment and, during entire operation of placing, compacting and finishing of concrete, do not deviate from this grade and alignment more than one-eighth inch ($1/8$ In) in ten feet (10 Ft) of length. Do not remove forms for at least eight hours (8 Hrs) after completion of finishing operations. Provide supply of forms that shall be adequate for orderly and continuous placing of concrete. Set forms and check grade for at least 300 feet ahead of mixer or as approved by the Project Manager.
2. Adjacent slabs may be used instead of forms, provided that concrete is well protected from possible damage by finishing equipment. Do not use adjacent slabs for forms until concrete has aged at least seven days (7 D).

3.5 REINFORCING STEEL AND JOINT ASSEMBLIES

- A Place reinforcing steel and joint assemblies and position securely as indicated on the Drawings. Wire reinforcing bars securely together at ends and splices, remaining mat shall be fifty percent (50%) tied at intersections. Bars and coatings shall be free of rust, dirt or other foreign matter when concrete is placed. Secure reinforcing steel to chairs.
- B Position pavement joint assemblies at required locations and elevations and rigidly secure in position. Install dowel bars in joint assemblies, each parallel to pavement surface and to center line of pavement, as

shown

- C Cut header boards, joint filler, and other material used for forming joints to receive each dowel bar
- D Secure in required position to prevent displacement during placing and finishing of concrete.
- E Drill dowels into existing pavement, secure with approved epoxy, and provide paving headers as required to provide rigid pavement sections
- F Use sufficient number of chairs for steel reinforcement bars to maintain position of bars within allowable tolerances. Place reinforcement as shown on the Drawings. In plane of steel parallel to nearest surface of concrete, bars shall not vary from plan placement by more than one-twelfth (1/12) of spacing between bars. In plane of steel perpendicular to nearest surface of concrete, bars shall not vary from plan placement by more than one-quarter inch (1/4 in).

3.6 FIBROUS REINFORCING

- A Do not use fibrous reinforcing to replace structural, load-bearing or moment-reinforcing steel.

3.7 PLACEMENT

- A Place concrete when air temperature taken in shade and away from artificial heat is above thirty five degrees Fahrenheit (35° F) and rising. Do not place concrete when air temperature is below forty degrees Fahrenheit (40° F) and falling.
- B Place concrete within ninety minutes (90 Min) after initial water had been added. Remove and dispose of concrete not placed within this period.
- C Concrete slump during placement shall be three inches (3 In) to five inches (5 In), except when using traveling-form paver which require slump shall be a maximum of three inches (3 In).
- D Deposit concrete continuously in successive batches. Distribute concrete in manner that shall require as little rehandling as possible. Where hand spreading is necessary, distribute concrete with shovels or by other approved methods. Use only concrete rakes in handling concrete. At placement interruption of more than thirty minutes (30 Min), place transverse construction joint at stopping point. Remove and replace sections less than ten feet (10 Ft) long.

- E. Take special care in placing and spading concrete against forms and at longitudinal and transverse joints to prevent honeycombing. Voids in edge of finished pavement shall be cause for rejection of pavement sections.

3.8 COMPACTION

- A Consolidate concrete using mechanical vibrators as specified herein. Extend vibratory unit across pavement, not quite touching side forms. Space individual vibrators at close enough intervals to vibrate and consolidate entire width of pavement uniformly. Mount mechanical vibrators to avoid contact with forms, reinforcement, transverse or longitudinal joints.
- B. Furnish enough hand-manipulated mechanical vibrators for proper consolidation of concrete along forms, at joints and in areas not covered by mechanically controlled vibrators.

3.9 FINISHING

- A Finish concrete pavement with power-driven transverse finishing machines or by hand finishing methods.
 - 1 Hand finish with mechanical strike and tamping template in same width as pavement to be finished. Shape template to pavement section shown on the Drawings. Move strike template forward in direction of placement, maintaining slight excess of material in front of cutting edge. Make a minimum of two (2) trips over each area. Screed pavement surface to required section. Work screed with combined transverse and longitudinal motion in direction work is progressing. Maintain screed in contact with forms. Use longitudinal float to level surface.
- B On narrow strips and transitions, finish concrete pavement by hand. Thoroughly work concrete around reinforcement and embedded fixtures. Strike off concrete with strike-off screed. Move strike-off screed forward with combined transverse and longitudinal motion in direction work is progressing, maintaining screed in contact with forms, and maintaining slight excess of materials in front of cutting edge. Tamp concrete with tamping template. Use longitudinal float to level surface.
- C. After completion of straightedge operation, make first (1st) pass of burlap drag or transverse broom as soon as construction operations

permit and before water sheen has disappeared from surface. Follow with as many passes as required to produce desired texture depth. Permit no unnecessary delays between passes. Keep drag wet, clean and free from encrusted mortar during use.

3.10 JOINTS AND JOINT SEALING

- A. Conform to requirements of Section 02840 – Concrete Pavement Joints

3.11 CONCRETE CURING

- A. Conform to requirements of Section 02835 – Concrete Pavement Curing.

3.12 TOLERANCES

- A. Test entire surface before initial set and correct irregularities or undulations. Bring surface within requirements of following test and then finish. Place ten foot (10 Ft) straightedge parallel to center of roadway to bridge depressions and touch high spots. Do not permit deviation measured from face of straightedge to surface of pavement to exceed one-sixteenth inch ($1/16$ in) per one foot (1 Ft) from nearest point of contact. Maximum deviation with ten foot (10 Ft) straightedge shall not exceed one-eighth inch ($1/8$ in). Grind spots in excess of required tolerances to meet surface test requirements. Restore texture by grooving concrete to meet surface finishing specifications.

3.13 FIELD QUALITY CONTROL

- A. Perform testing under provisions of Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures
- B. Compressive Strength Test Specimens: Make four (4) test specimens for compressive strength test in accordance with ASTM C31 for each one hundred cubic yards (100 Cy) or less of pavement that is placed in one (1) day. Test two (2) specimens at seven days (7 D), or at number of hours as directed by the Project Manager for high early strength concrete. Test remaining two (2) specimens at twenty-eight days (28 D). Test specimens in accordance with ASTM C39. Minimum compressive strength shall be at least two thousand seven hundred pounds per square inch (2700 psi) for first two (2) specimens tested at seven days (7 D) and three thousand pounds per square inch (3000 psi) for the second two (2) specimens tested at twenty-eight days (28 D).

- C. When compressive test indicates failure, make yield test in accordance with ASTM C138 for cement content per cubic yard of concrete. When cement content is found to be less than that specified per cubic yard, increase batch weights until amount of cement per cubic yard of concrete conforms to requirements
- D. Minimum of one (1) – four inch (4 In) core shall be taken at random locations per one thousand square yards (1000 Sy) of pavement to measure in-place depth. Measure depth in accordance with ASTM C174. Each core may be tested for twenty-eight day (28 D) compressive strength according to methods of ASTM C42. Twenty-eight (28) day compressive strength of each core tested shall be a minimum of three thousand pounds per square inch (3000 psi).
- E. Request, at option of the Project Manager, three (3) additional cores in vicinity of cores indicating the nonconforming in-place depths at no cost to the City. In-place depth at these locations shall be average depth of four (4) cores.
- F. Fill cores and density test sections with new concrete paving or non shrink grout.
- G. Alternative testing for depth may be performed using string line and random testing of locations for depth before concrete is placed.

3.14 NONCONFORMING PAVEMENT

- A. Remove and replace areas of pavement found deficient in thickness by more than ten percent (10%) or that fail compressive strength tests, with concrete of thickness and strength shown on the Drawings.
- B. When measurement of any core is less than specified thickness by more than ten percent (10%), actual thickness of pavement in this area shall be determined by taking additional cores at ten foot (10 Ft) intervals parallel to centerline in each direction from deficient core until, in each direction, core is taken which is not deficient by more than ten percent (10%). Exploratory cores for deficient thickness shall not be used in averages for adjusted unit price. Exploratory cores are to be used only to determine length of pavement in unit that is to be removed and replaced. Replace nonconforming pavement sections at no additional cost to the City.

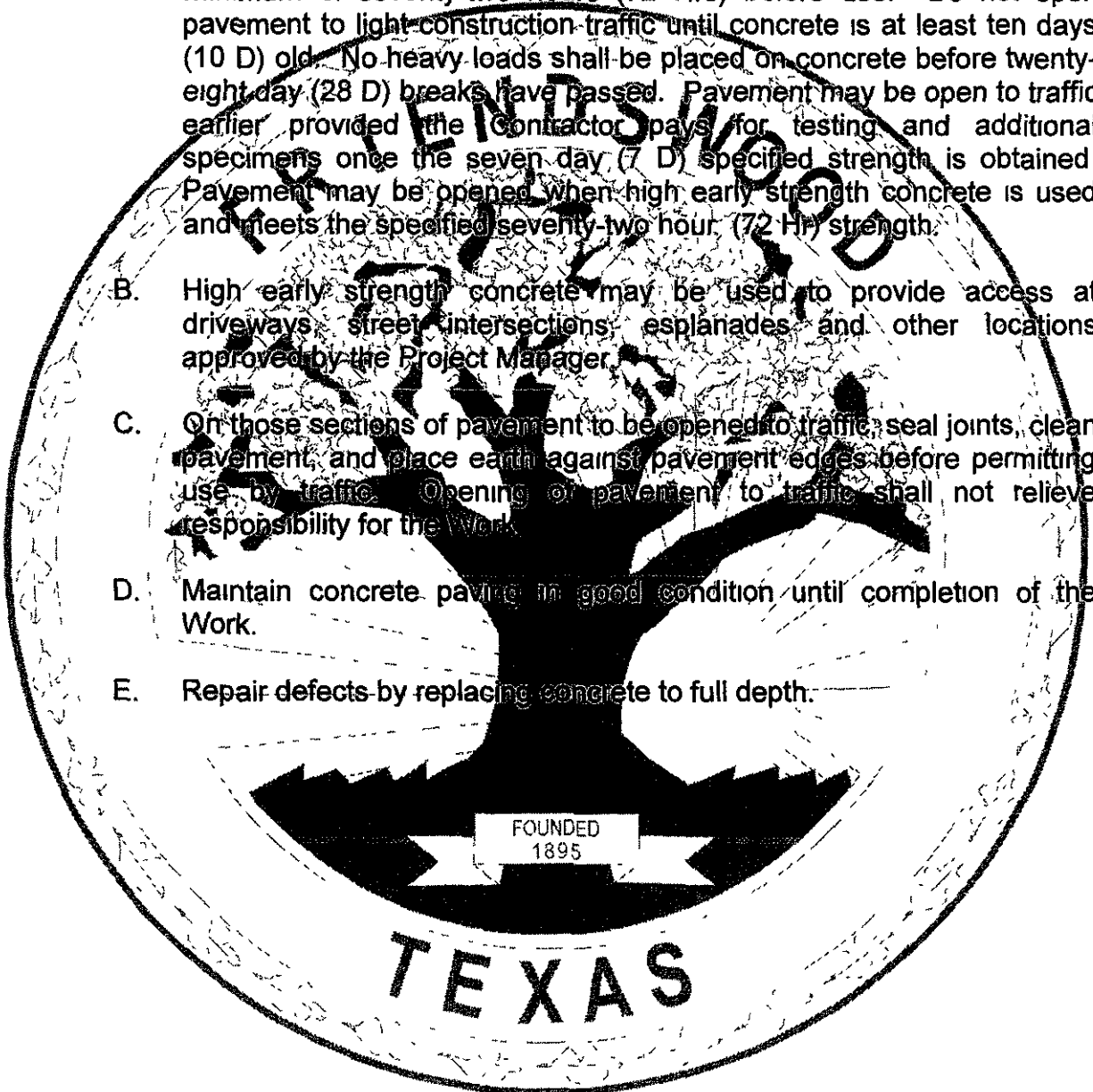
3.15 PAVEMENT MARKINGS

- A. Restore pavement markings to match those existing in accordance with the City of Friendswood Technical Specifications and Standard Details

and the Project Manager's requirements.

3.16 PROTECTION

- A. Barricade pavement section to prevent use until concrete has attained a minimum design strength. Cure barricade pavement section for a minimum of seventy-two hours (72 Hrs) before use. Do not open pavement to light construction traffic until concrete is at least ten days (10 D) old. No heavy loads shall be placed on concrete before twenty-eight day (28 D) breaks have passed. Pavement may be open to traffic earlier provided the Contractor pays for testing and additional specimens once the seven day (7 D) specified strength is obtained. Pavement may be opened when high early strength concrete is used and meets the specified seventy-two hour (72 Hr) strength.
- B. High early strength concrete may be used to provide access at driveways, street intersections, esplanades and other locations approved by the Project Manager.
- C. On those sections of pavement to be opened to traffic, seal joints, clean pavement, and place earth against pavement edges before permitting use by traffic. Opening of pavement to traffic shall not relieve responsibility for the Work.
- D. Maintain concrete paving in good condition until completion of the Work.
- E. Repair defects by replacing concrete to full depth.



PART IV TABLES

4.1 DELETERIOUS SUBSTANCES

ITEM	PERCENT BY WEIGHT OF TOTAL SAMPLE MAXIMUM
Clay lumps and friable particles	3.0
Material finer than No. 200 sieve	
Concrete subject to abrasion	3.0*
All other concrete	5.0*
Coal and lignite	
Where surface appearance of concrete is of Importance	0.5
All other concrete	1.0

* In case of manufactured sand, when material finer than No. 200 sieve consists of dust or fracture, essentially free of clay or shale, then these limits may be increased to five percent (5%) and seven percent (7%) respectively.

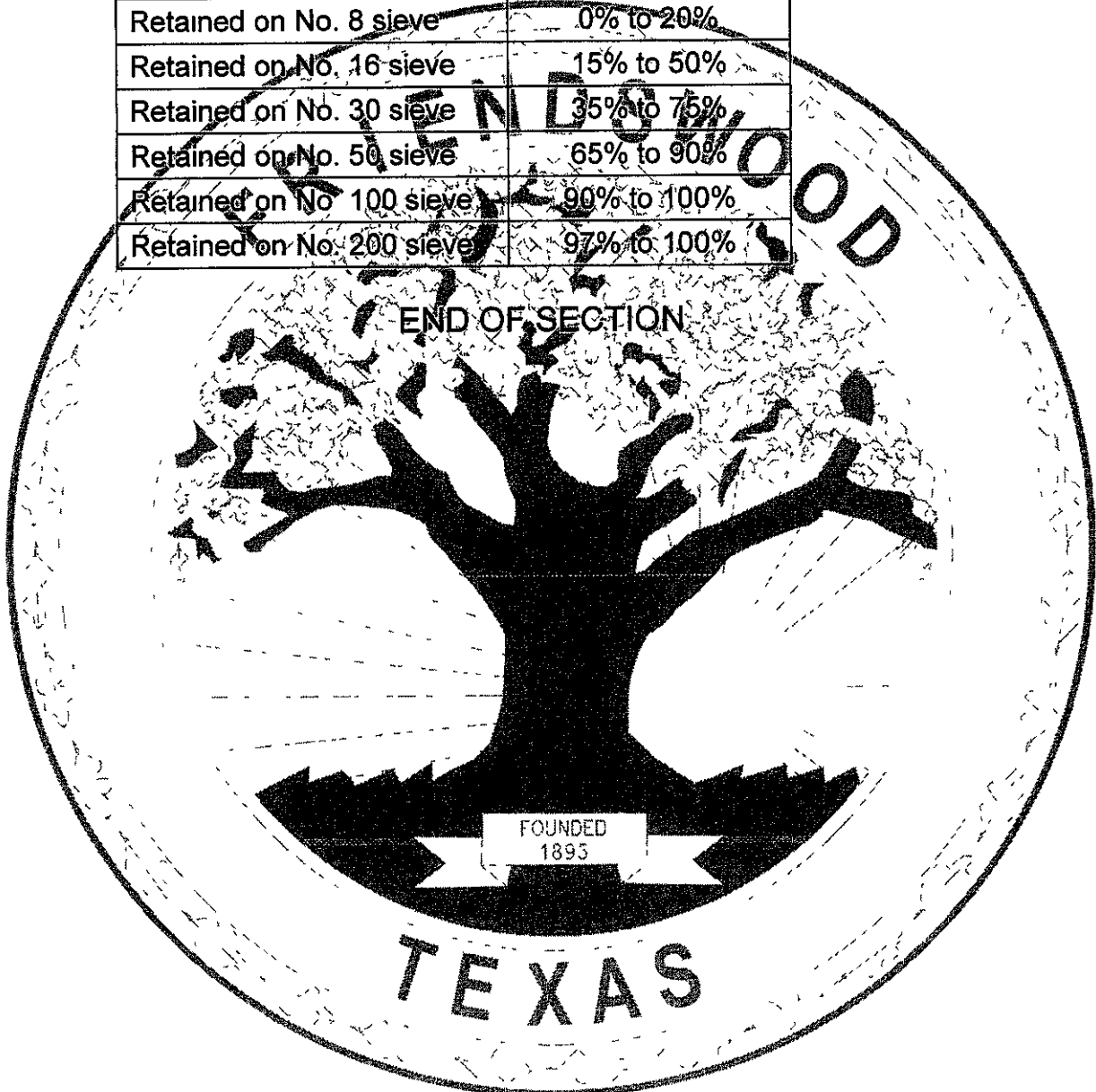
4.2 COARSE AGGREGATE SIEVE ANALYSIS REQUIREMENTS

SIEVE DESIGNATION (SQUARE OPENINGS)	PERCENTAGE BY WEIGHT
Retained on 1 3/4" sieve	0%
Retained on 1 1/2" sieve	0% to 5%
Retained on 3/4" sieve	30% to 65%
Retained on 3/8" sieve	70% to 90%
Retained on No. 4 sieve	95% to 100%
Loss by Decantation Test	
*Method Tex-406-A	1.0 maximum

* In case of aggregates made primarily from crushing of stone, when material finer than No. 200 sieve is dust or fracture essentially free from clay or shale as established by Part III of TxDOT Tex-406-A, percent may be increased to one and one-half percent (1.5%).

4.3 FINE AGGREGATE SIEVE ANALYSIS REQUIREMENTS

SIEVE DESIGNATION (SQUARE OPENINGS)	PERCENTAGE BY WEIGHT
Retained on 3/8" sieve	0%
Retained on No. 4 sieve	0% to 5%
Retained on No. 8 sieve	0% to 20%
Retained on No. 16 sieve	15% to 50%
Retained on No. 30 sieve	35% to 75%
Retained on No. 50 sieve	65% to 90%
Retained on No. 100 sieve	90% to 100%
Retained on No. 200 sieve	97% to 100%



SECTION 02810

CONCRETE MEDIANS AND DIRECTIONAL ISLANDS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Portland cement concrete medians and directional islands

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices:

1. Payment for concrete medians and directional islands is on a square yard basis measured along length and from back of curbs for width.
2. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum):

1. If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price.

1.3 REFERENCES

A. CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment.
2. Section 02720 – Lime-Stabilized Base Subgrade.
3. Section 02725 – Portland Cement-Stabilized Base Subgrade.
4. Section 02805 – Concrete Paving.
5. Section 02835 – Concrete Pavement Curing.
6. Section 02840 – Concrete Pavement Joints.

PART II: PRODUCTS

2.1 MATERIALS

- A. Concrete: Conform to material and proportion requirements for concrete of Section 02805 – Concrete Paving.
- B. Reinforcing Steel: Conform to material requirements for welded wire fabric of Section 02805 – Concrete Paving.
- C. Preformed Expansion Joint Material: Conform to material requirements for preformed expansion joint material of Section 02840 – Concrete Pavement Joints.
- D. Expansion Joint Filler: Conform to material requirements for expansion joint filler of Section 02840 – Concrete Pavement Joints.
- E. Subgrade Materials: Conform to subgrade material requirements of Section 02720 – Lime-Stabilized Base Subgrade and Section 02725 – Portland Cement-Stabilized Base Subgrade.

PART III: EXECUTION

3.1 SUBGRADE

- A. Prepare subgrade in accordance with applicable portions of sections on excavation and fill and embankment Section 02720 – Lime-Stabilized Base Subgrade and Section 02725 – Portland Cement-Stabilized Base Subgrade.

3.2 PLACEMENT OF CONCRETE

- A. Place and finish concrete in accordance with applicable portions of Section 02805 – Concrete Paving.

3.3 JOINTS

- A. Install joints in accordance with Section 02840 – Concrete Pavement Joints.

3.4 CONCRETE CURING

- A. Cure concrete in accordance with Section 02835 – Concrete Pavement Curing

3.5 PROTECTION

- A Maintain new placed concrete medians and directional islands in good condition until completion of the Work
- B Replace damaged concrete medians and directional islands to comply with this Section



SECTION 02815

HEADERS, CURB, CURB AND GUTTER

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Reinforced concrete curb, reinforced monolithic concrete curb and gutter, and mountable curb
- B Paving headers and railroad headers poured monolithically with concrete base or pavement

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices

- 1 Payment for curbs, curbs and gutter and esplanade curbs is on a linear foot basis measured along face of curb.
- 2 Payment for three foot (3 Ft) concrete valley gutter is on a linear foot basis.
- 3 Payment for mountable concrete curbs is on a square foot basis.
- 4 Payment for concrete paving headers and concrete railroad headers is on a linear foot basis.
- 5 Payment for headers is on linear foot basis measured between lips of gutters adjacent to concrete base or measured between backs of curbs adjacent to concrete pavement.
- 6 Refer to Section 01270 – Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum):

- 1 If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price

1.3 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.

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- B. Submit details of proposed form work for approval.

1.4 REFERENCES

A CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment
2. Section 01330 – Submittal Procedures
3. Section 02805 – Concrete Paving
4. Section 02835 – Concrete Pavement Curing
5. Section 02840 – Concrete Pavement Joints

PART II: PRODUCTS

2.1 MATERIALS

- A. Concrete. Conform to material and proportion requirements for concrete of Section 02805 – Concrete Paving
- B. Reinforcing Steel. Conform to material requirements for welded wire fabric of Section 02805 – Concrete Paving.
- C. Grout. Nonmetallic, nonshrink grout containing no chloride producing agents conforming to requirements specified in TABLE 4.1 – NONSHRINK GROUT REQUIREMENTS, in PART IV of this Section.
- D. Preformed Expansion Joint Material. Conform to material requirements for preformed expansion joint material of Section 02840 – Concrete Pavement Joints.
- E. Expansion Joint Filler. Conform to material requirements for expansion joint filler of Section 02840 – Concrete Pavement Joints
- F. Mortar. Mortar finish composed of one (1) part Portland cement and one and one-half (1-1/2) parts of fine aggregate. Use only when approved by the Project Manager

PART III: EXECUTION

3.1 PREPARATION

- A Prepare subgrade in accordance with applicable portions of sections on excavation and fill, embankment and subgrade and roadbed

3.2 PLACEMENT

- A. Guideline: Set to follow top line of curb. Attach indicator to provide constant comparison between top of curb and guideline. Ensure flow lines of gutters on monolithic curb and gutters conform to slopes indicated on the Drawings.
- B. Forms: Brace to maintain position during pour. Use metal templates cut to section shown on the Drawings.
- C. Reinforcement: Secure in position so that steel shall remain in place throughout placement. Reinforcing steel shall remain at approximate center of base of pavement as indicated on the Drawings.
- D. Joints: Place in accordance with Section 02840 - Concrete Pavement Joints. Place dummy groove joints at driveways to match concrete pavement joints at right angles to curb lines. Cut dummy grooves one-quarter inch (1/4 in) deep using approved edging tool.
- E. Place concrete in forms to required depth. Consolidate thoroughly. Do not permit rock pockets in form. Entirely cover top surfaces with mortar.
- F. Verify headers are to the depth and the rebar is in place according to the City of Friendswood Standard Details.

3.3 MANUAL FINISHING

- A. For monolithic curb and gutters, remove front curb forms, after concrete is in place. Form exposed portions of curb and of curb and gutter, using mule which conforms to curb shape, as shown on the Drawings.
- B. Thin coat of mortar may be worked into exposed face of curb or curb and gutter using mule and two (2) handled wooden "darby" at least three feet (3 Ft) long
- C. Before applying final finish move ten foot (10 Ft) straightedge across curb or across gutter and up curb to back form of curb. Repeat until curb and gutter are true to grade and section. Lap straightedge over previous finish operation by five feet (5 Ft).

- D Steel trowel finish surfaces to smooth, even finish Make face of finished curb true and straight.
- E. Edge outer edge of gutter with one-quarter inch (1/4 In) edger Finish edges with tool having one-quarter inch (1/4 In) radius
- F Finish visible surfaces and edges of finished curb or curb and gutter free from blemishes, form marks and tool marks. Finished curb or curb and gutter shall have uniform color, shape and appearance.

3.4 MECHANICAL FINISHING

- A Mechanical curb or curb and gutter forming and finishing machines may be used instead of or in conjunction with previously described methods when approved by the Project Manager. Use of mechanical methods shall provide specified curb or curb gutter design and finish.

3.5 CURING

- A. Immediately after finishing operations, cure exposed surfaces of curb or curb and gutter in accordance with Section 02835 - Concrete Pavement Curing.

3.6 TOLERANCES

- A Top surfaces of curb or curb and gutter shall have uniform width and shall be free from humps, sags or other irregularities. Surfaces of curb top, curb face and gutter shall not vary more than one-eighth inch (1/8 In) from edge of straightedge laid along them, except at grade changes

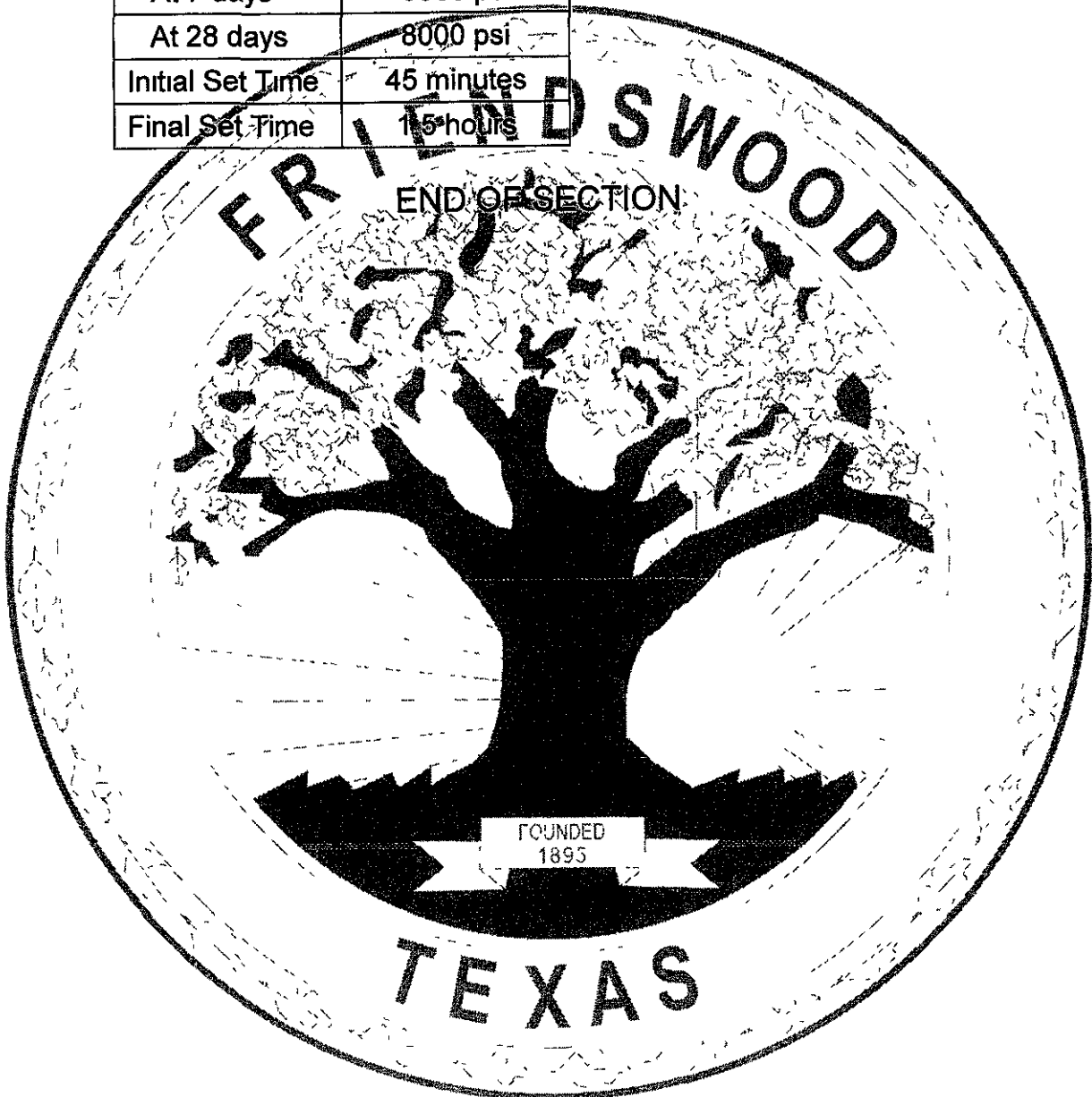
3.7 PROTECTION

- A. Maintain newly placed headers, curbs and curbs and gutters in good condition until completion of the Work.
- B. Replace damaged headers, curbs and curbs and gutters to comply with this Section.

PART IV: TABLES

4.1 NONSHRINK GROUT REQUIREMENTS

Compressive Strength.	
At 7 days	3500 psi
At 28 days	8000 psi
Initial Set Time	45 minutes
Final Set Time	1 1/2 hours



SECTION 02820

CONCRETE SIDEWALKS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Reinforced concrete sidewalks.
- B. Wheelchair ramps.

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices

- 1 Payment for concrete sidewalks is on a square foot basis
- 2 No separate payment shall be made for work outside these limits or in areas where sidewalks or wheelchair ramps have been removed or replaced for the Contractor's convenience.
- 3 Payment for wheelchair ramps of each type specified is on a per ramp basis.
- 4 Removal and replacement of existing sidewalks, curb or curb and gutter and saw-cutting is paid on a unit cost basis for each item.
- 5 Sodding shall be paid one foot (1 Ft) on each side of sidewalk unless otherwise noted.
- 6 Coloring of wheelchair ramps is included in cost of ramp
- 7 Refer to Section 01270 - Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum)

- 1 If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price

1.3 REFERENCES

- A ASTM – American Society for Testing and Materials.

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1. ASTM C31 – Standard Practice for Making and Curing Concrete Test Specimens in Field.
2. ASTM C39 – Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
3. ASTM C42 – Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.
4. ASTM C138 – Standard Test Method for Unit Weight, Yield and Air Content (Gravimetric) of Concrete
5. ASTM C143 – Standard Test Method for Slump of Hydraulic Cement Concrete.
6. ASTM C172 – Standard Practice for Sampling Freshly Mixed Concrete.
7. ASTM D698 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft³ (600 kN-m/m³)).
- B. CFTS – City of Friendswood Technical Specifications.
 1. Section 01270 – Measurement and Payment
 2. Section 01330 – Submittal Procedures
 3. Section 01470 – Testing Laboratory Services.
 4. Section 01475 – Quality Control Testing Procedures.
 5. Section 01580 – Waste Material Disposal.
 6. Section 02100 – Clearing and Grubbing.
 7. Section 02140 – Utility Backfill Materials.
 8. Section 02720 – Lime-Stabilized Base Subgrade
 9. Section 02805 – Concrete Paving
 10. Section 02825 – Colored Concrete for Wheelchair Ramps.
 11. Section 02835 – Concrete Pavement Curing

- 12. Section 02840 – Concrete Pavement Joints
- 13. Section 02845 – Pavement Repair and Resurfacing
- 14. Section 02915 – Sodding.
- 15. Section 03200 – Reinforcing Steel

C. TASABA – Texas Accessibility Standards of Architectural Barriers Act, of the Texas Civil Statutes.

1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures
- B. Submit certified testing results and certificates of compliance

PART II: PRODUCTS

2.1 MATERIALS

- A. Concrete: Conform to material and proportion requirements for concrete of Section 02805 – Concrete Paving.
- B. Reinforcing Steel: Conform to material requirements of Section 02805 – Concrete Paving for reinforcing steel. Use No. 3 (3/8 In) reinforcing bars
- C. Preformed Expansion Joint Material: Conform to material requirements for preformed expansion joint material of Section 02840 – Concrete Pavement Joints.
- D. Expansion Joint Filler: Conform to material requirements for expansion joint material of Section 02840 – Concrete Pavement Joints
- E. Forms: Use straight, unwarped wood or metal forms with nominal depth equal to or greater than proposed sidewalk or wheelchair ramp thickness. The use of two-inch by four-inch (2 In x 4 In) lumber as forms shall not be allowed
- F. Sand Bed: Conform to material requirements for bank run sand of Section 02140 – Utility Backfill Materials.
- G. Sodding: Conform to material requirements for sodding of Section 02915 – Sodding.

- H. Coloring for wheelchair ramps: Conform to material requirements for colored concrete of Section 02825 – Colored Concrete for Wheelchair Ramps

PART III. EXECUTION

3.1 REPLACEMENT

- A. Replace sidewalks which are removed or damaged during construction with thickness and width equivalent to one (1) removed or damaged, unless otherwise shown on the Drawings. Finish surface (exposed aggregate, stamped concrete, etc.) to match existing sidewalk.
- B. Provide wheelchair ramps on existing, replaced or new sidewalks when sidewalk intersects curb at street or driveway.

3.2 PREPARATION

- A. Identify and protect utilities which are to remain.
- B. Protect living trees, other plant growth and features designated to remain.
- C. Conduct clearing and grubbing operations in accordance with Section 02100 – Clearing and Grubbing.
- D. Excavate subgrade six inches (6 in) beyond outside lines of sidewalk or wheelchair ramp. Shape to line, grade and cross section. For soils with plasticity index above forty percent (40%), stabilize soil with lime in accordance with Section 02720 – Lime-Stabilized Base Subgrade. Compact subgrade to minimum of ninety percent (90%) maximum dry density at optimum moisture content plus or minus three percent ($\pm 3\%$), as determined by ASTM D698.
- E. Immediately after subgrade is prepared, cover with compacted sand bed to depth as shown on the Drawings. Lay concrete when sand is moist but not saturated.

3.3 PLACEMENT

- A. Setting Forms: Straight, unwarped wood or metal forms with nominal depth equal to or greater than proposed sidewalk thickness. Use of two inch by four inch (2 in x 4 in) wood studs as forms shall not be allowed. Securely stake forms to line and grade. Maintain position during concrete placement.

B Reinforcement

1. Install reinforcing bars in conformance of Section 03200 – Reinforcing Steel.
2. Install reinforcing steel as shown on the drawings. Lay longitudinal bars in sidewalks or wheelchair continuously, except through expansion joints.
3. Use sufficient number of chairs to support reinforcement in manner to maintain reinforcement in center of slab vertically during placement.
4. Drill dowels into existing paving, sidewalk and driveways, secure with epoxy and provide headers as required.
5. Use sufficient number of chairs for steel reinforcement bars to maintain position of bars within allowable tolerances. Place reinforcement as shown on the Drawings. In plane of steel parallel to nearest surface of concrete, bars shall not vary from plan placement by more than one and one-half (1-1/2) of spacing between bars. In plane of steel perpendicular to nearest surface of concrete, bars shall not vary from plan placement by more than one-quarter inch (1/4 In).

- C. Expansion Joints:** Install expansion joints with load transfer units in accordance with Section 02840 – Concrete Pavement Joints
- D** Place concrete in forms to specified depth and tamp thoroughly with "jitterbug" tamper or other acceptable method. Bring mortar to surface.
- E** Strike off to smooth finish with wood strike board. Finish smoothly with wood hand float. Brush across sidewalk lightly with fine-haired brush, and impress or hand-groove required pattern into wheelchair ramp.
- F** Apply coating to wheelchair ramp with contrasting color in accordance with Section 02825 – Colored Concrete for Wheelchair Ramps.
- G** Unless otherwise indicated on the Drawings, install construction sidewalk joints one-eighth inch (1/8 In) deep, at intervals not exceeding five feet (5 Ft). Use joint tool equal in width to edging tool.
- H** Finish edges with tool having one-quarter inch (1/4 In) radius.
- I.** After concrete has set sufficiently, refill space along sides of sidewalk to

one inch (1 In) from top of walk with suitable fill material. Tamp until firm and solid, place sod as applicable. Dispose of excess material in accordance with Section 01580 – Waste Material Disposal. Repair driveways and parking lots damaged by sidewalk excavation in accordance with Section 02845 – Pavement Repair and Resurfacing.

3.4 CURING

- A. Conform to requirements of Section 02835 – Concrete Pavement Curing.

3.5 FIELD QUALITY CONTROL

- A. Testing shall be performed under provisions of Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures.
- B. Compressive Strength Test Specimens. Four (4) test specimens for compressive strength test shall be made in accordance with ASTM C31 for each thirty cubic yards (30 Cy) or less of sidewalk that is placed in one day (1 D). Two (2) specimens shall be tested at seven days (7 D). Remaining two (2) specimens shall be tested at twenty-eight days (28 D). Specimens shall be tested in accordance with ASTM C39. Minimum compressive strength: two thousand seven hundred pounds per square inch (2700 psi) at seven days (7 D) for first two (2) specimens and three thousand pounds per square inch (3000 psi) at twenty-eight days (28 D) for the second two (2) specimens.
- C. Yield test for cement content per cubic yard of concrete shall be made in accordance with ASTM C138. When cement content is found to be less than that specified per cubic yard, reduce batch weights until amount of cement per cubic yard of concrete conforms to requirements.
- D. If the Contractor places concrete without notifying the laboratory, the City shall have the concrete tested by means of core test as specified in ASTM C42. When concrete does not meet this specification, cost of test shall be deducted from the Contractor's payment.
- E. Sampling of fresh concrete shall be in accordance with ASTM C172.
- F. Take slump tests when cylinders are made and when concrete slump appears excessive.
- G. Concrete shall be acceptable when average of two (2) twenty-eight (28) day compression tests is equal to or greater than minimum twenty-eight day (28 D) strength specified.

- H If either of two (2) tests on field samples is less than average of two (2) tests by more than ten percent (10%), that entire test shall be considered suspect and not indicative of concrete strength. Core samples shall be required from in-place concrete in question
- I If twenty-eight day (28 D) laboratory test indicates that concrete of low strength has been placed, test concrete in question by taking cores as directed and approved by the Project Manager. Take and test at least three (3) representative cores as specified in ASTM C42 and deduct cost from payment due.

3.6 NONCONFORMING CONCRETE

- A Remove and replace areas that fail compressive strength tests, or thickness of concrete shown on the Drawings.
- B. Replace non-conforming sections at no additional cost to the City

3.7 PROTECTION

- A Maintain newly-placed concrete in good condition until completion of the Work
- B. Replace damaged areas

END OF SECTION

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SECTION 02825

COLORED CONCRETE FOR WHEELCHAIR RAMPS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Colored concrete for Wheelchair ramps

1.2 MEASUREMENT AND PAYMENT

- A. Unit Prices

1. No separate payment shall be made for coloring agent under this Section. Include payment in unit price bid for wheelchair ramps.
2. Refer to Section 01270 – Measurement and Payment for unit price procedures.

- B. Stipulated Price (Lump Sum)

1. If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price.

1.3 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures
- B. Submit product data for proposed coloring agent.

1.4 REFERENCES

- A. ADA – Americans with Disabilities Act.
- B. CFTS – City of Friendswood Technical Specifications
1. Section 01270 – Measurement and Payment.
 2. Section 01330 – Submittal Procedures
 3. Section 02805 – Concrete Paving.
 4. Section 02820 – Concrete Sidewalks.

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C TABA – Texas Architectural Barriers Act.

PART II: PRODUCTS

2.1 MATERIALS

- A. Coloring Agent: Provide dry-shake color hardener consisting of quartz-silica mixture of finely-graded, non-metallic aggregates, plasticizer and cement binder for producing color as shown on the Drawings.
- B. Color shall be Black.
- C. Concrete: Conform to material and proportion requirements of Section 02805 – Concrete Paving

PART III: EXECUTION

3.1 WHEELCHAIR RAMPS

- A. Install wheelchair ramps in accordance with requirements of Part III of Section 02820 – Concrete Sidewalks with addition of procedure for application of coloring agent as required by Paragraph 3.2, Coloring Agent.

3.2 COLORING AGENT

- A. Apply coloring agent on newly finished concrete surface as soon as job conditions permit, but in no event later than two hours (2 Hrs) after concrete is placed, at rate recommended by manufacturer or as approved by the Project Manager
- B. Apply color hardener uniformly to surface by dry-shake method when no excess moisture shows at surface of concrete, but while concrete is still plastic throughout. Do not sprinkle or otherwise add water to surface during application or finishing. Necessary moisture for color hardener shall come from the concrete as that color hardener develops the proper bond and produces adequate density for color-hardened surface.
- C. First (1st) shake shall consume two-thirds (2/3) of material. Withhold one-third (1/3) for second (2nd) shake and final touch-up. After first (1st) shake, float surface thoroughly by mechanical or hand methods. Do not trowel surface between first (1st) and second (2nd) shakes.

- D Apply second (2nd) shake evenly, then float and trowel surface. Retain small quantity of material from second (2nd) shake for touching up non-uniform or weak-toned areas. Minimize hard troweling and use consistent finishing practices to ensure uniformity of color.

END OF SECTION



SECTION 02830

CONCRETE DRIVEWAYS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Portland cement concrete driveways.

1.2 MEASUREMENT AND PAYMENT

- A. Unit Prices:

1. Payment for concrete driveways is on square foot basis, including excavation and stabilize subgrade.
2. No separate payment shall be made for work in areas where driveway has been removed or replaced for the Contractor's convenience.
3. Refer to Section 01270 – Measurement and Payment for unit price procedures.

- B. Stipulated Price (Lump Sum):

1. If Contract is Stipulated Price Contract, payment for Work in this Section is included in Total Stipulated Price.

1.3 REFERENCES

- A. CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment
2. Section 01330 – Submittal Procedures.
3. Section 02720 – Lime-Stabilized Base Subgrade
4. Section 02725 – Portland Cement-Stabilized Base Subgrade
5. Section 02805 – Concrete Paving
6. Section 02835 – Concrete Pavement Curing.

7. Section 02840 – Concrete Pavement Joints.

8 Section 03200 – Reinforcing Steel

PART II. PRODUCTS

2 1 MATERIALS

- A Concrete: Conform to material and proportion requirements for concrete of Section 02805 – Concrete Paving
- B Reinforcing Steel: Conform to material requirements for reinforcing steel of Sections 02805 – Concrete Paving and 03200 – Reinforcing Steel
- C Preformed Expansion Joint Material: Conform to material requirements for preformed expansion joint material of Section 02840 – Concrete Pavement Joints.
- D Expansion Joint Filler: Conform to material requirements for expansion joint material of Section 02840 – Concrete Pavement Joints
- E Subgrade Materials: Conform to subgrade material requirements of Section 02720 – Lime-Stabilized base Subgrade or Section 02725 – Portland Cement-Stabilized Base Subgrade

PART III: EXECUTION

3 1 PREPARATION

- A. Prepare subgrade in accordance with applicable portions of Section 02720 – Lime-Stabilized Base Subgrade and Section 02725 – Portland Cement-Stabilized Base Subgrade.

3 2 REINFORCING STEEL

- A Reinforcing steel shall comply with Section 03200 – Reinforcing Steel. Steel shall be raised off the ground using chairs. Minimum size of reinforcing bars shall be #3 (3/8 in) reinforcing bars at sixteen inch (16 in) centers with a minimum of eighteen inches (18 in) overlap.
- B No concrete shall be placed until after reinforcing bars and forms have been inspected and approved by the Project Manager.

3.2 PLACEMENT

- A. Place and finish concrete in accordance with applicable portions of Section 02805 – Concrete Paving

3.3 JOINTS

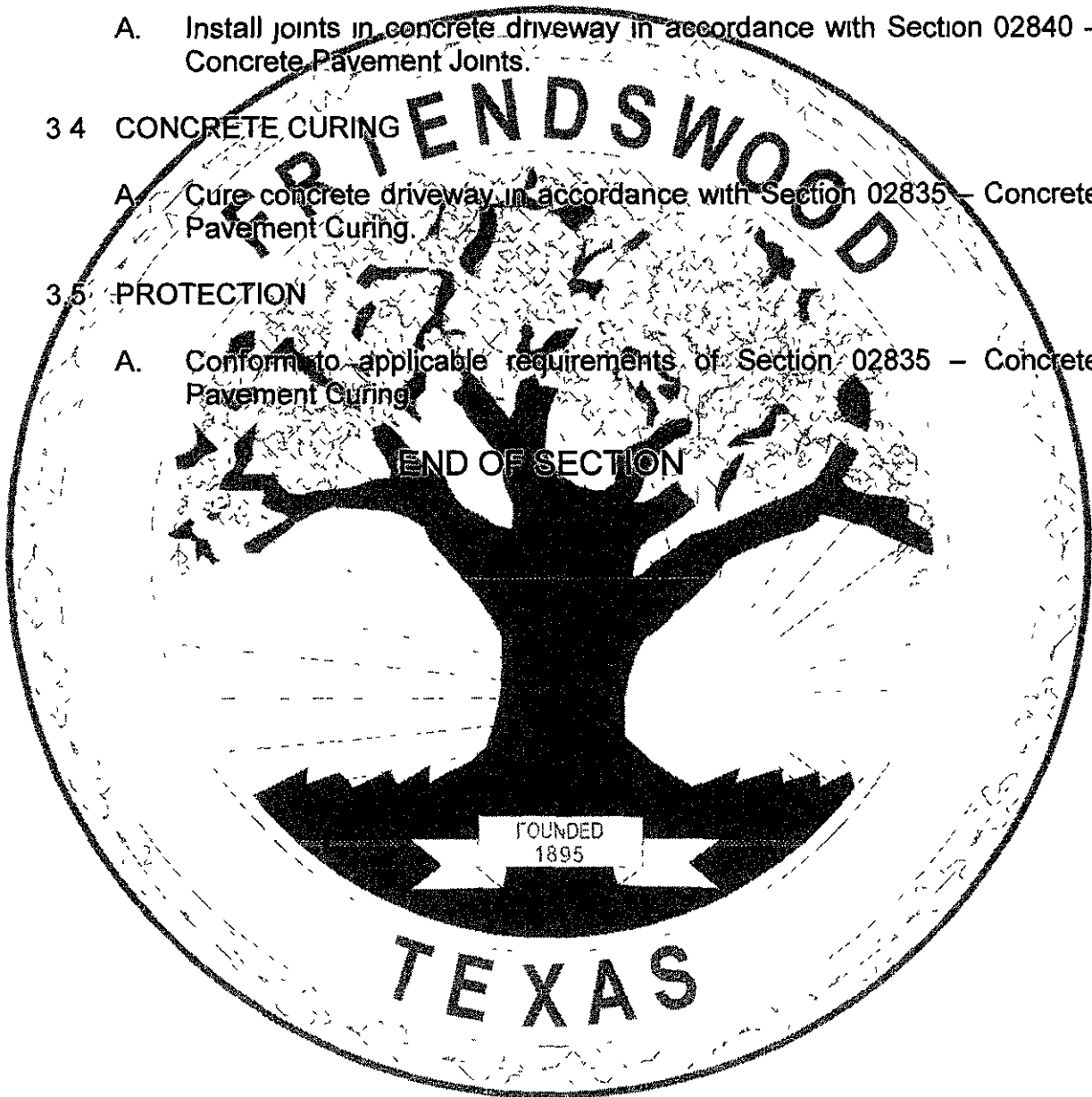
- A. Install joints in concrete driveway in accordance with Section 02840 – Concrete Pavement Joints.

3.4 CONCRETE CURING

- A. Cure concrete driveway in accordance with Section 02835 – Concrete Pavement Curing.

3.5 PROTECTION

- A. Conform to applicable requirements of Section 02835 – Concrete Pavement Curing



SECTION 02835

CONCRETE PAVEMENT CURING

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Curing of Portland cement concrete paving.

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices.

1. No separate payment shall be made for concrete curing under this Section. Include payment in unit price for Concrete Paving, Concrete Sidewalks, Concrete Driveways, Mountable Curbs, Curbs and Curb and Gutters.
2. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum).

1. If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price.

1.3 REFERENCES

A. ASTM – American Society for Testing and Materials

1. ASTM C156 – Standard Test Method for Water Retention by Concrete Curing Materials.
2. ASTM C171 – Standard Specifications for Sheet Materials for Curing Concrete.
3. ASTM C309 – Standard Specifications for Liquid Membrane-Forming Compounds for Curing Concrete

B. CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment
2. Section 01330 – Submittal Procedures.

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1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.
- B. Submit manufacturer's product data for cover materials and liquid membrane-forming compounds

PART II: PRODUCTS

2.1 COVER MATERIALS FOR CURING

- A. Conform curing materials to one of the following:
 - 1. Polyethylene Film: Opaque pigmented white film conforming to requirements of ASTM C171.
 - 2. Waterproofed Paper: Paper conforming to requirements of ASTM C171.
 - 3. Cotton Mats: Single layer of cotton filler completely enclosed in cover of cotton cloth. Mats shall contain not less than three-quarters pound (3/4 Lb) of uniformly distributed cotton filler per square yard of mat. Cotton cloth used for covering materials shall weigh not less than six ounces per square yard (6 Oz/Sy). Stitch mats so that mat shall contact surface of pavement at all points when saturated with water.

2.2 LIQUID MEMBRANE-FORMING COMPOUNDS

- A. Conform liquid membrane-forming compounds to ASTM C309. Membrane shall restrict loss of water to not more than 0.55 kg/m² in seventy-two hours (72 Hrs) using test method ASTM C156.

PART III: EXECUTION

3.1 CURING REQUIREMENT

- A. Cure concrete pavement by protecting against loss of moisture for period of at least seventy-two hours (72 Hrs) immediately upon completion of finishing operations. Do not use membrane curing for concrete pavement to be overlaid by asphalt concrete.
- B. Failure to provide sufficient cover material shall be cause for immediate suspension of concreting operations.

3.2 POLYETHYLENE FILM CURING

- A Immediately after finishing surface and after concrete has taken its initial set, apply water in form of fine spray. Cover entire surface and all edges of pavement slab with polyethylene film so film shall remain in direct contact with surface and edges during specified curing period.
- B Cover entire surface and both edges of pavement slab. Overlap joints in film sheets a minimum of twelve inches (12 in). Immediately repair tears or holes occurring during curing period by placing acceptable moisture proof patches or replacing film sheets.

3.3 WATERPROOFED PAPER CURING

- A Immediately after finishing surface and after concrete has taken its initial set, apply water in form of fine spray. Cover entire surface and all edges of pavement slab with waterproofed paper so paper shall remain in direct contact with surface and edges during specified curing period.
- B Prepare waterproofed paper to form blankets of sufficient width to cover entire surface and all edges of pavement slab. Blankets shall not be more than sixty feet (60 Ft) in length. Overlap joints in blankets caused by joining paper sheets by at least five inches (5 in) and securely seal with asphalt cement having melting point of approximately one hundred eighty degrees Fahrenheit (180° F). Place blankets with overlaps of at least twelve inches (12 in). Immediately repair tears or holes appearing in paper during curing period by cementing patches over defects or replacing blankets.

3.4 COTTON MAT CURING

- A Immediately after finishing surface and after concrete has taken its initial set, completely cover entire surface and edges of pavement slab with cotton mats, thoroughly saturated before application, maintaining contact with surface and edges of pavement equally at all points.
- B Keep mats on pavement for specified curing period. Keep mats saturated so that, when lightly compressed, water shall drip freely from them.

3.5 LIQUID MEMBRANE-FORMING COMPOUNDS

- A Immediately after free surface moisture and after concrete has dispersed, apply liquid membrane-forming compound in accordance with manufacturer's instructions.

- B. Moisten concrete by water fogging prior to application of film, paper or mat when surface has become dry.
- C. Seal concrete surface with single coat at rate of coverage recommended by manufacturer or as directed by the Project Manager, but not less than one gallon (1 Gal) per two hundred square feet (200 Sf) of surface area.
- D. Concrete surface shall be completely and evenly covered. Any portion that has streaking, splattering or spurling shall be redone at no additional cost to the City.

3.6 TESTING MEMBRANE

- A. Treated areas shall be visually inspected for areas of lighter color of dry concrete as compared to dump concrete. Test suspected areas by placing few drops of water on surface. Membrane passes test when water stands in rounded beads or small pools which can be blown along surface of concrete without wetting surface.
- B. Reapply membrane compound immediately at no cost to the City when membrane fails test noted above.

END OF SECTION

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SECTION 02840

CONCRETE PAVEMENT JOINTS

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A. Joints for concrete paving, concrete sidewalks, concrete driveways, mountable curbs, curbs and curb and gutters.
- B. Saw-cutting existing concrete or asphalt pavements for new joints.

1.2 MEASUREMENT AND PAYMENT

A Unit Prices

1. Payment for street pavement expansion joints, with or without load transfer, is on a linear foot basis.
2. No separate payment shall be made for horizontal dowels. Include payment in the unit price for Concrete Paving, Concrete Driveways, Concrete Sidewalks or Curb and Gutter.
3. No separate payment shall be made for formed or sawed street pavement contraction joints and longitudinal weakened plane joints. Include payment in the unit price for Concrete Paving.
4. No separate payment shall be made for joints for Mountable Curbs, Curb, Curb and Gutter, Saw-tooth Curb, Concrete Sidewalks and Concrete Driveways. Include payment in the unit price for Mountable Curbs, Curbs, Curb and Gutter, Saw-tooth Curb, Concrete Sidewalks and Concrete Driveways.
5. Payment shall be made for Preformed Expansion Joints on a linear foot basis only when field conditions require that sidewalk be moved adjacent to existing concrete structure (i.e., street, back of curb, etc.).
6. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum).

1. If Contract is Stipulated Price Contract, payment for work in this

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Section is included in Total Stipulated Price

1.3 REFERENCES

A ASTM – American Society for Testing and Materials.

- 1 ASTM A615 – Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.
- 2 ASTM D994 – Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type).
- 3 ASTM D1751 – Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
- 4 ASTM D3405 – Standard Specification for Joint Sealants, Hot-Applied, for Concrete and Asphalt Pavements.

B. CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment
2. Section 01330 – Submittal Procedures.

C TxDOT – Texas Department of Transportation.

1. TxDOT Tex-525-C – Tests for Asphalt and Concrete Joint Sealers.

1.4 SUBMITTALS

A. Conform to requirements of Section 01330 – Submittal Procedures

B Submit product data for joint sealing compound and proposed sealing equipment for approval.

C Submit samples of dowel caps, metal supports and deformed metal strip for approval. Submit manufacturer's recommendation for placing sealant(s).

PART II PRODUCTS

2.1 BOARD EXPANSION JOINT MATERIAL

- A Filler board of selected stock Use wood of density and type as follows
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- 1 Clear, all-heart cypress weighing no more than forty pounds per cubic foot (40 Lbs/Cf), after being oven dried to constant weight.
- 2 Clear, all-heart redwood weighing no more than thirty pounds per cubic foot (30 Lbs/Cf), after being oven dried to constant weight.

2.2 PREFORMED EXPANSION JOINT MATERIAL

- A Bituminous fiber and bituminous mastic composition material conforming to ASTM D994 and ASTM D1751.

2.3 JOINT SEALING COMPOUND

- A. Joint sealants shall conform to one (1) of the sealant classes described in this Section.

- B. Hot-poured rubber-asphalt compound to conform to ASTM D3405.

- C Two (2) component Synthetic Polymer.

1. Curing is to be by polymerization and not by evaporation of solvent or fluxing of harder particles.

2. Cure sufficiently at average temperature of seventy-seven degrees Fahrenheit (77° F) plus or minus two degrees Fahrenheit ($\pm 2^\circ$ F) so as not to pick up under wheels of traffic in a maximum of three hours (3 Hrs).

3. Performance requirements when tested in accordance with TxDOT Tex-525-C¹⁸⁹⁵ shall meet above curing times and requirements as specified in TABLE 4.1 – COLD EXTRUDED AND COLD POURABLE (SELF LEVELING) SPECIFICATIONS in this Section.

4. Provide cold-extruded type for vertical or sloping joints

5. Provide self-leveling type for horizontal joints

- D Self-Leveling, Low Modulus Silicone or Polyurethane Sealant for Asphaltic Concrete and Portland Cement Concrete Joints This shall be a single component self-leveling silicone or polyurethane material that is compatible with both asphalt and concrete pavements. The sealer shall not require a primer for bond, a backer rod shall be required shall

be compatible with the sealant, no reaction shall occur between rod and sealant. When tested in accordance with TxDOT Tex-525-C, self-leveling sealant shall meet requirements as specified in TABLE 4.2 – SELF-LEVELING, LOW MODULUS OR POLYURETHANE SEALEANT SPECIFICATIONS in this Section

2.4 LOAD TRANSMISSION DEVICES

- A. Smooth steel dowel bars conforming to ASTM A615, Grade 60. When indicated on the Drawings, encase one (1) end of dowel bar in approved cap having inside diameter one-sixteenth inch (1/16 in) greater than diameter of dowel bar.
- B. Deformed steel tie bars conforming to ASTM A615, Grade 60.

2.5 SUPPORTS FOR REINFORCING STEEL AND JOINT ASSEMBLY

- A. Employ supports of approved shape and size that shall secure reinforcing steel and joint assembly in correct position during placing and finishing of concrete. Space supports as directed by the Project Manager.

PART III: EXECUTION

3.1 PLACEMENT

- A. When new Work is adjacent to existing concrete, place joints at same location as existing joints in adjacent pavement.
- B. If limit of removal of existing concrete or asphalt pavement does not fall on existing joint, saw cut existing pavement a minimum of two inches (2 in) deep to provide straight, smooth joint surface without chipping, spalling or cracks.
- C. All new concrete joints shall be placed as shown in the City of Friendswood Standard Details.

3.2 CONSTRUCTION JOINTS

- A. Place transverse construction joint wherever concrete placement must be stopped for more than thirty minutes (30 Min). Place longitudinal construction joints at interior edges of pavement lanes using #6 (3/4 in) deformed tie bars, thirty inches (30 in) long and spaced sixteen inches (16 in) on centers and use keyways.

3.3 EXPANSION JOINTS

- A. Place three-quarters inch (3/4 In) wide expansion joints at radius points of curb returns for cross street intersections or as located in adjacent pavement but no further than sixty feet (60 Ft) apart. Use no boards shorter than six feet (6 Ft). When pavement is twenty-four feet (24 Ft) or narrower, use not more than two (2) lengths of board. Secure pieces to form straight joint. Shape board filler accurately to cross-section of concrete slab. Use load transmission devices of type and size shown on the Drawings unless otherwise specified or shown as "No Load Transfer Device." Seal with joint sealing compound.

3.4 CONTRACTION JOINTS

- A. Place contraction joints at same locations as in adjacent pavement or at spaces indicated on the Drawings.
- B. Use sawed joints as alternate to contraction and weakened plane joints. Use circular cutter capable of cutting straight line groove a minimum of one-quarter inch (1/4 In) wide. Maintain depth of one-quarter (1/4) of pavement thickness. Commence sawing as soon as concrete has hardened sufficiently to permit cutting without chipping, spalling or tearing and prior to initiation of cracks. Once sawing has commenced, continue until completed. Make saw cut with one (1) pass. Complete sawing within twenty-four hours (24 Hrs) of concrete placement. Saw joints at required spacing consecutively in sequence of concrete placement.
- C. Concrete Saw. Provide sawing equipment adequate in power to complete sawing to required dimensions and within required time. Maintain ample supply of saw blades at work site during sawing operations. Maintain sawing equipment on job during concrete placement.

3.5 LONGITUDINAL WEAKENED PLANE JOINTS

- A. Place longitudinal weakened plane joints at spaces indicated on the Drawings. If more than fifteen feet (15 Ft) in width is poured, longitudinal joint must be saw cut. Seal sawed or tooled groove with joint sealing compound.

3.6 EXPANSION AND CONTRACTION JOINTS FOR MOUNTABLE CURB, CURB, CURB AND GUTTER

- A. Place three-quarters inch (3/4 In) wide preformed expansion joints through mountable curb, curb, curb and gutters at locations of

expansion and contraction joints in adjacent pavement, at end of radius returns, at street intersections, at driveways, at curb inlets and any other location directed by the Project Manager. Maximum spacing between joints shall be fifteen feet (15 Ft) for contraction joints and sixty feet (60 Ft) for expansion joints

3.7 EXPANSION AND CONTRACTION JOINTS FOR CONCRETE SIDEWALKS

- A. Provide three-quarters inch (3/4 In) wide expansion joints conforming to ASTM A1751 across sidewalk at intervals no greater than sixty feet (60 Ft) and along sidewalks at back of curbs, at intersections with driveways, steps and walls. Provide expansion joint material conforming to ASTM D994 for small radius curves and around fire hydrants and utility poles. Extend expansion joint material full depth of slab. Saw-cut or tool contraction joints into sidewalk at intervals not exceeding five feet (5 Ft).

3.8 EXPANSION JOINTS FOR CONCRETE DRIVEWAYS

- A. Provide three-quarters inch (3/4 In) wide expansion joints conforming to ASTM D1751 across driveway at street pavement, at right-of-way line, at existing concrete driveways and intersections with sidewalks and other structures or as shown on the Drawings. Extend expansion joint material full depth of slab. Contraction joints are not normally required, unless shown on the Drawings or as directed by the Project Manager.

3.9 JOINT SEALING

- A. Seal joints only when surface and joints are dry, ambient temperature is above fifty degrees Fahrenheit (50° F) and less than eighty-five degrees Fahrenheit (85° F) and weather is not foggy or rainy.
- B. Use joint-sealing equipment in like new working condition throughout joint sealing operation and be approved by the Project Manager. Use concrete grooving machine or power-operated wire brush and other equipment such as plow, brooms, brushes, blowers or hydro or abrasive cleaning as required to produce satisfactory joints.
- C. Clean joints of loose scale, dirt, dust and curing compound. The term joint includes wide joint spaces, expansion joints, contraction joints and cracks, either preformed or natural. Remove loose material from concrete surfaces adjacent to joints.
- D. Fill joints neatly with joint sealer to depth shown. Pour sufficient joint sealer into joints so that upon completion, surface of sealer within joint shall be one-quarter inch (1/4 In) above level of adjacent surface or at

elevation as directed by the Project Manager.

3.10 PROTECTION

- A Maintain newly-placed joints in good condition until completion of the Work.
- B Replace damaged joints material with new material as required by this Section.

PART IV: TABLES

4.1 COLD EXTRUDED AND COLD POURABLE (SELF-LEVELING) SPECIFICATIONS

COLD EXTRUDED AND COLD POURABLE (SELF-LEVELING) SPECIFICATIONS	
PROPERTY	REQUIREMENT
Penetration, 25° C (77° F), 150g Cone, 5 s, 0.1 min (in.), maximum	130
Bond and Extension 50%, -29° C (-20° F), 3 cycles	
Dry Concrete Block	Pass
Steel blocks (Primed, if recommended by manufacturer)*	Pass
Flow at 70° C (158° F)	None
Water content % by mass, maximum	5.0
Resilience:	
Original sample, % minimum (cured)	50
Oven-aged at 70° C (158° F), % minimum	50
Cold Extruded material only – Cold Flow (10 minutes)	None

After bond extension test, there shall be no evidence of cracking, separation or other opening that is over one-eighth inch (1/8 in.) deep in sealer or between sealer and test blocks.

* Steel blocks shall be used when armor joints are specified.

4.2 SELF-LEVELING, LOW MODULUS OR POLYURETHANE SEALANT SPECIFICATIONS

SELF-LEVELING, LOW MODULUS SILICONE OR POLYURETHANE SPECIFICATIONS	
PROPERTY	REQUIREMENT
Tack Free Time, 25° ± 1° C (77° ± 2° F), minutes	120 maximum
Nonvolatile content, % by mass	93 minimum
Tensile Strength and 24 Hour Extension Test:	
Initial, 10-day cure 25° ± 1° C (77° ± 2° F), kPa (psi)	21 to 69 (3 to 10)
After Water Immersion, kPa (psi)	21 to 69 (3 to 10)
After Heat Aging, kPa (psi)	21 to 69 (3 to 10)
After Cycling -29° C (-20° F), 50%, 3 cycles, kPa (psi)	21 to 69 (3 to 10)
24 Hour Extension	Pass (All Specimens)

After twenty-four hours (24 Hrs), there shall be no evidence of cracking, separation or other opening that is over one eighth inch (1/8 in.) deep at any point in the sealer or between the sealer and test blocks.

END OF SECTION

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SECTION 02845

PAVEMENT REPAIR AND RESURFACING

PART I. GENERAL

1.1 GENERAL REQUIREMENTS

- A Repairing and resurfacing streets, highways, driveways, sidewalks and other pavements that have been cut, broken or otherwise damaged during construction.

1.2 MEASUREMENT AND PAYMENT

A Unit Prices:

1. No separate payment shall be made for pavement repair and resurfacing under this Section. Payment shall be in accordance with Measurement and Payment for work as required in appropriate sections.
2. Refer to Section 01270 – Measurement and Payment for other unit price procedures.

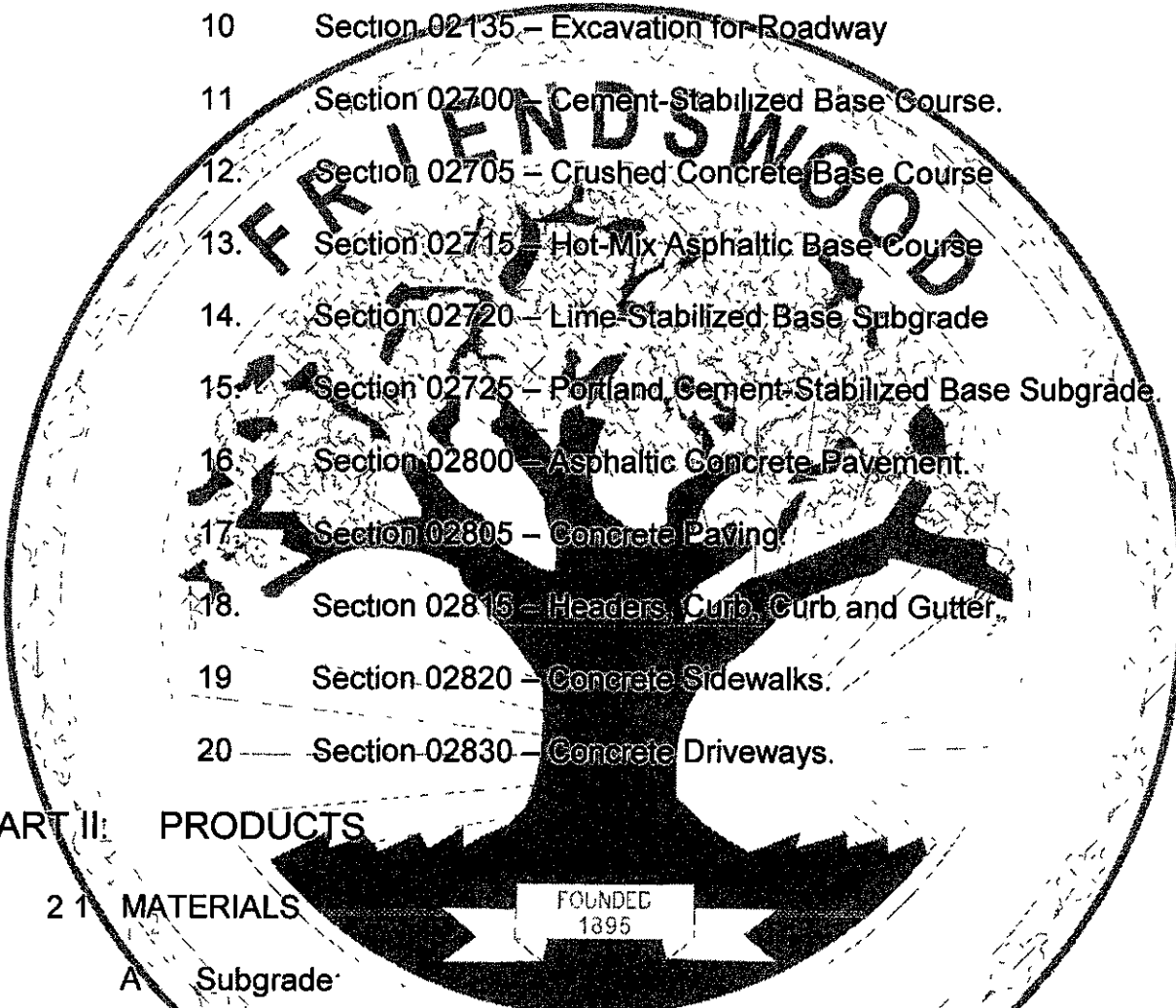
B Stipulated Price (Lump Sum):

1. If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price.

1.3 REFERENCES

A. CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment.
2. Section 01330 – Submittal Procedures.
3. Section 01580 – Waste Material Disposal
4. Section 02105 – Removing Existing Pavements and Structures.
5. Section 02110 – Borrow
6. Section 02115 – Embankment.

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- 7 Section 02120 – Excavation and Backfill for Structures.
 8. Section 02125 – Excavation and Backfill for Utilities
 9. Section 02130 – Extra Unit Price Work for Excavation and Backfill
 - 10 Section 02135 – Excavation for Roadway
 - 11 Section 02700 – Cement-Stabilized Base Course.
 12. Section 02705 – Crushed Concrete Base Course
 13. Section 02715 – Hot-Mix Asphaltic Base Course
 14. Section 02720 – Lime-Stabilized Base Subgrade
 15. Section 02725 – Portland Cement-Stabilized Base Subgrade.
 16. Section 02800 – Asphaltic Concrete Pavement.
 17. Section 02805 – Concrete Paving
 18. Section 02815 – Headers, Curb, Curb and Gutter.
 - 19 Section 02820 – Concrete Sidewalks.
 - 20 Section 02830 – Concrete Driveways.

PART II: PRODUCTS

21 MATERIALS

A Subgrade

- 1 Provide backfill material as required by Sections 02110 – Borrow, 02115 – Embankment, 02120 – Excavation and Backfill for Structures, 02125 – Excavation and Backfill for Utilities, 02130 – Extra Unit Price Work for Excavation and Backfill, and 02135 – Excavation for Roadway
- 2 Provide material for stabilization as required by applicable portions of Section 02720 – Lime-Stabilized Base Subgrade and Section 02725 – Portland Cement-Stabilized Base Subgrade.

- B. Base Provide base material as required by applicable portions of Section 02700 – Cement-Stabilized Base Course Section 02705 – Crushed Concrete Base Course and Section 02715 – Hot-Mix Asphaltic Base Course.
- C. Pavement. Provide paving materials as required by applicable portions of Section 02800 – Asphaltic Concrete Pavement, Section 02805- Concrete Paving, Section 02830 – Concrete Driveways and Section 02815 – Headers, Curb, Curb and Gutter and Section 02820 – Concrete Sidewalks.

PART III: EXECUTION

3.1 PREPARATION

- A. Notify the Project Manager prior to commencement of excavation in pavement for which an Excavation in Public Right-of-Way permit has been obtained. Follow directions contained in the permit.
- B. Conform to requirement of Section 02405 – Removing Existing Pavements and Structures, for removals.
- C. Saw cut pavement two feet (2 Ft) wider than width of trench needed to install utilities unless otherwise indicated on the Drawings.
- D. When removing pavement to existing deformed metal strip (i.e. dummy joint), saw cut pavement a minimum of two inches (2 In) deep on opposite side of deformed metal strip. Place saw joint far enough behind deformed metal strip to obtain continuously straight joint. Remove damaged portion of deformed metal strip as required to provide proper joint. Saw cut and remove metal strip before placement of new concrete pavement.
- E. Protect edges of existing pavement to prevent damage during removals, utility placement, backfill and paving operations. For concrete pavement, protect undisturbed subgrade that is to remain to support replacement slab.
- F. Dowel-in to existing pavement where no reinforcement is found or is broken due to construction activities. Unless otherwise directed by the Project Manager, provide No 6 (3/4 In) reinforcing bars twenty-four inches (24 In) long, drilled and embedded twelve inches (12 In) into center of existing slab with 'PO-ROC' epoxy grout or approved equal. Space dowels to match new pavement reinforcement spacing.
- G. Provide transitional paving, additional base depth and undercutting of

existing pavement as required to tie proposed pavement to existing pavement when unable to dowel new pavement into existing pavement

- H Temporarily fill hole with base material or bridge with three-quarter inch (3/4 In) steel plates until ready to place concrete.

3.2 INSTALLATION

- A. Parking Areas, Service Drives, Driveways and Sidewalks Replace with material equal to or better than existing or as indicated on the Drawings. Conform to applicable requirements of sections referenced in Paragraph 2.1, Materials.
- B. Street Pavements and Curbs, Curbs and Gutters. Replace subgrade, base and surface course with like materials or as indicated on the Drawings and the City of Friendswood Standard Details and Technical Specifications. Curbs and curbs and gutters shall match existing. Conform to requirements of sections referenced in Paragraph 2.1, Materials.
- C. For concrete pavement, install size and length of reinforcing steel and pavement thickness indicated on the Drawings and the City of Friendswood Standard Details and Technical Specifications. Place types and spacing of joints to match existing joints or as indicated on the Drawings.
- D. Where existing pavement consists of concrete pavement with asphaltic surfacing, resurface with a minimum of two inch (2 In) depth asphaltic pavement.
- E. Repair TxDOT highway and county crossings in accordance with TxDOT permit or county requirements as appropriate, and within one week (1 Wk) after utility work is complete or pavement removal in cases of pavement repair only.

3.3 WASTE MATERIAL DISPOSAL

- A. Dispose of waste material in accordance with requirements of Section 01580 – Waste Material Disposal.

3.4 PROTECTION

- A. Maintain pavement in good condition until completion of the Work.
- B. Replace pavement damaged by the Contractor's operations at no cost to the City.

END OF SECTION



SECTION 02850

BLAST CLEANING OF PAVEMENT

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Removal of existing pavement markings.
- B. Preparation of pavement surfaces for new pavement markings

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices

1. Payment for blast cleaning of roadway lanes is on a linear foot basis for each width, measured in place.
2. Payment for blast cleaning of symbols and legends is on a per legend or symbol basis, for each type of group of symbols or legends.
3. Payment for removal of raised pavement markings, all types, is on a lump sum basis.
4. Refer to Section 01270 - Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum)

1. If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price.

1.3 SUBMITTALS

- A. Conform to requirements of Section 01330 - Submittal Procedures.
- B. Submit description and characteristics of proposed blasting medium and equipment for approval.

1.4 REFERENCES

- A CFTS – City of Friendswood Technical Specifications.
 - 1 Section 01270 – Measurement and Payment
 - 2 Section 01330 – Submittal Procedures.

PART II. PRODUCTS

2.1 MATERIALS

- A. **Blasting Media** – Quality commercial product capable of producing specified surface cleanliness without deposition of deleterious materials on cleaned pavement surface. Do not use high silica content sand particles as blasting agent that may result in high levels of free crystalline silica dust.

2.2 EQUIPMENT

- A. Equipment shall be power-driven and of sufficient capacity to remove pavement markings. Equipment shall utilize moisture and oil traps of sufficient capacity to remove contaminants from air and prevent deposition of moisture, oil or other contaminants on pavement surface.

PART III: EXECUTION

3.1 REMOVAL OF EXISTING MARKINGS

- A. Remove pavement markings in a sequence that shall prevent driver confusion or where indicated on the Drawings. Included are areas where it shall be necessary for drivers to cross existing markings which they would not normally cross. Completely remove or obliterate markings. Do not damage pavement surface.

3.2 CLEANING FOR PLACEMENT OF MARKERS

- A. Remove old pavement markings, loose material and other contaminants deleterious to adhesion of new pavement markings to be placed. On Portland cement concrete pavement, minimize over-blasting to prevent damage to pavement surface. Small particles of tightly adhering existing pavement markings may remain, as approved by the Project Manager, if complete removal shall result in pavement surface damage.

- B Follow manufacturer's written instructions for proper cleaning of pavement surfaces to receive pavement marking

END OF SECTION



SECTION 02855

RAISED PAVEMENT MARKERS

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Raised reflective pavement markers and jiggle bars.

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices:

1. Payment for Type I raised reflective pavement markers with one (1) reflective face is per each marker installed
2. Payment for Type I raised reflective pavement markers with two (2) reflective faces is per each marker installed
3. Payment for Type I raised pavement markers with no reflective face is per each marker installed
4. Payment for Type II raised reflective pavement markers with one (1) reflective face is per each marker installed.
5. Payment for Type II raised reflective pavement markers with two (2) reflective faces is per each marker installed
6. Payment for Type "W" jiggle bars is on a unit price basis per each jiggle bar.
7. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum):

1. If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price.

1.3 REFERENCES

A. ASTM – American Society for Testing and Materials

1. ASTM D2444 – Standard Test Method for Determination of
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Impact Resistance of Thermoplastic Pipe and Fittings by means of a Tup (Falling Weight).

2 ASTM E808 – Standard Practice for Describing Retroreflection

3 ASTM E809 – Standard Practice for Measuring Photometric Characteristics of Retroreflectors

B CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment.

2. Section 01330 – Submittal Procedures.

3. Section 02850 – Blast Cleaning of Pavement

C Federal Specification L-P-380C – Plastic Molding Material Methacrylate

D TxDOT – Texas Department of Transportation

1. TxDOT Material Specification DMS-4100 – Jiggle Bar Tile.

2. TxDOT Material Specification DMS-6130 – Bituminous Adhesive for Pavement Markers.

1.4 SUBMITTALS

A Conform to requirements of Section 01330 – Submittal Procedures.

B. Submit manufacturer's product data concerning following materials for approval:

1 Types I, II and III, W and Y markers.

2 Primers, solvents and adhesives.

3 Installation instructions

C Submit certificate by manufacturer that each marker and adhesive conforms to requirements in this Section.

D Submit details of manufacturer's replacement policy for each type and class of marker

1 5 DELIVERY AND STORAGE

- A. Deliver markers in cartons of one hundred (100) units and epoxy adhesive in one gallon (1 Gal) pails. Ship like materials in like-sized containers to facilitate storage
- B. Store material in cool, dry conditions until application.

PART II PRODUCTS

2 1 MARKERS

- A. **Raised Reflective Pavement Markers:** Shallow frustum of pyramid shaped markers with tempered glass prismatic reflective elements. Bodies shall be plastic shells with resin/sand fillings or single-piece injection-molded bodies of impact resistant polymers. Plastic shells shall be Methyl Methacrylate conforming to Federal Specification L-P-380C, Type I, Class 3 and shall have a minimum wall thickness of sixty-five hundredths of an inch (0.65 In).
- B. Marker configuration shall be as specified in Table 4.1 – **RAISED PAVEMENT MARKER CONFIGURATION FOR TYPES I, II AND III.**
- C. Optical performance for Type I or II Raised Pavement Markers shall be as specified in Table 4.2 – **RAISED PAVEMENT MARKER OPTICAL PERFORMANCE FOR TYPES I AND II.**
- D. Optical performance for Type III Raised Pavement Markers shall be as specified in Table 4.3 – **RAISED PAVEMENT MARKER OPTICAL PERFORMANCE FOR TYPE III.**
- E. **Testing Procedure:** Locate randomly selected test marker with center of reflecting face five feet (5 Ft) from uniformly bright light source with effective diameter of two-tenths of an inch (0.2 In). Use photocell width of five hundredths of an inch (0.05 In) for Type I markers and photocell with annular ring of thirty-seven hundredths of an inch by forty-six hundredths of an inch (0.37 In x 0.46 In) for Type II markers; shield to eliminate stray light. Distance from light source to photocell center of twenty-one hundredths of an inch (0.21 In). Modify source receiver dimensions and distance between source and receiver proportionally to test distance change for test distances other than five feet (5 Ft). Lots containing more than four percent (4%) reflecting face failures shall be rejected according to ASTM E808 and ASTM E809
- F. Physical requirements shall be in accordance with following test procedures

- 1 Type I and Type III Markers. Select three (3) random markers per lot. Center marker over open end of vertically positioned one inch (1 In) long hollow metal cylinder with three inch (3 In) inside diameter and twenty-five hundredths of an inch (0.25 In) wall thickness. Apply load slowly to top of marker through one inch (1 In) diameter by one inch (1 In) high metal plug centered on marker. Breakage or appreciable deformation of test sample at a load less than two thousand pounds (2000 Lbs) shall be cause for lot rejection.

- 2 Type II Markers. Select twenty (20) random markers per lot. Condition markers in convection oven at one hundred thirty degrees Fahrenheit (130° F) for one hour (1 Hr). At elevated temperature, impact reflective face by dropping ninety gram (90 g) dart, fitted with twenty-five hundredth of an inch (0.25 In) radius spherical head, six inches (6 In) perpendicularly onto center of reflective surface. Cracks in impact surface area shall be generally concentric in appearance. Small radial cracks less than twenty-five hundredth of an inch (0.25 In) in length shall be allowed. Lot shall be acceptable when eighteen (18) test samples meet testing requirements. The failure of four (4) test samples shall cause lot rejection. Retest additional twenty (20) markers when three (3) samples from the first (1st) group fail. The failure of one (1) lens of re-sample group shall cause lot rejection.

G Impact Resistance: Test in accordance with ASTM D2444 Tup A.

H Jiggle Bar Tile, Class A, shall conform to TxDOT Material Specifications D-9-4100 and includes Types I-A, I-C, II-A-A, W and Y.

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1. Type I-A shall contain approach face that reflects amber light. Body, other than reflective face, shall be yellow.
2. Type I-C shall contain approach face that reflects white light. Body, other than reflective face, shall be white, silver-white or light gray.
3. Type II-A-A shall contain two (2) reflective faces (approach and trailing) each of which shall reflect amber light. Body, other than reflective faces, shall be yellow.
4. Type W shall have white body and no reflective faces.
5. Type Y shall have yellow body and no reflective faces.

6 Adhesive

- a Bituminous adhesive conforming to TxDOT material Specification D-9-6130 shall be used for Class A type markers on bituminous pavements
- b Epoxy adhesive for Class A type markers on Portland cement concrete pavements
- c Adhesives for installation of joggle bar shall be as recommended by manufacturer

2.2 ADHESIVE

- A Obtain two (2) component epoxy adhesive from reflective pavement marker manufacturer which conforms to manufacturer's requirements for installation for Class A, B, C, and D markers on Portland cement concrete pavements
- B Provide bituminous adhesive per TxDOT Material Specification D-9-6130 and which conforms to manufacturer's requirements for installation for Class A, B, C and D markers on bituminous pavements

PART III EXECUTION

3.1 PREPARATION

- A Accurately locate and install approved markers to conform to classes and colors indicated on the Drawings
- B Clean and repair surfaces to receive markings. Remove loose material, dust and contaminants such as oil, curing membrane or polished aggregates
- C Blast clean surfaces indicated on the Drawings or where directed by the Project Manager in accordance with requirements of Section 02850 – Blast Cleaning of Pavement. Do not clean Portland cement concrete pavements by grinding. Mechanical wire brushing may be used to remove curing membranes

3.2 INSTALLATION

- A Prepare pavement surfaces and install markers in accordance with marker and adhesive manufacturer's recommendations

- B Test pavement surface for moisture content prior to application of markings. Place approximate two square foot (2 Sf) sheet of clear plastic or tar paper on road surface and hold in place for twenty minutes (20 Min). Immediately inspect sheet for build up of condensed moisture. When sufficient moisture has condensed to cause water to drip from sheet, do not apply markings. Repeat test as necessary until sufficient moisture has evaporated from pavement to allow placement.
- C Observe manufacturer's recommended pavement and ambient air temperature requirements for application. When manufacturer has no temperature recommendations, do not install markings when pavement surface temperature is below sixty degrees Fahrenheit (60° F) or above one hundred twenty degrees Fahrenheit (120° F).
- D Position reflective face of markers so that direction of reflection of one (1) face is directly opposite to direction of reflection of other face and parallel to centerlines of street.
- E Prepare surfaces to which markers are to be attached by adhesive by a method to ensure that surface is free of dirt, curing compound, grease, oil, moisture, loose or unsound pavement markings and other materials which would adversely affect adhesive bond.
- F Establish guides to mark lateral location of pavement markings as shown on drawings. Guides placed on roadway for alignment purposes shall not establish permanent marking on roadway.
- G Place pavement markings in alignment with guides. Deviation rate in alignment shall not exceed one inch (1 In) per two hundred feet (200 Ft) of roadway. A maximum deviation shall not exceed two inches (2 In) nor shall deviation be abrupt. Remove and replace markings that are out of alignment or proper sequence.
- H Apply adhesive in sufficient quantity to ensure adhesion and as recommended by manufacturer for installation.
- I Markers shall be free of rust, scale, dirt, oil, grease, moisture or contaminants which might adversely affect adhesive bond.
- J Adhesive or other materials that impair functional reflectivity shall not be acceptable.
- K Place markers immediately after adhesive is applied and set into adhesive. Pavement markers shall not be in contact with pavement surface but shall be seated on continuous layer of adhesive. One hundred percent (100%) of bonding area of marker shall be in contact.

with adhesive

- L For Bituminous adhesive use, pavement and pavement marker temperature shall be at least forty degrees Fahrenheit (40° F) Do not heat Bituminous adhesive to temperature greater than four hundred degrees Fahrenheit (400° F) Agitate Bituminous adhesive immediately to ensure even heat distribution
- M Prime pavement surface and apply markings as recommended by manufacturer

3.3 CLEANING

- A Keep project site free of unnecessary traffic hazards at all times
- B Clean area upon completion of the Work and remove rubbish from the work site.

3.4 WARRANTY

- A Warrant material and labor for period of twelve months (12 Mos) from date of installation of markings.

PART IV TABLES

4.1 RAISED PAVEMENT MARKER CONFIGURATION FOR TYPES I, II AND III

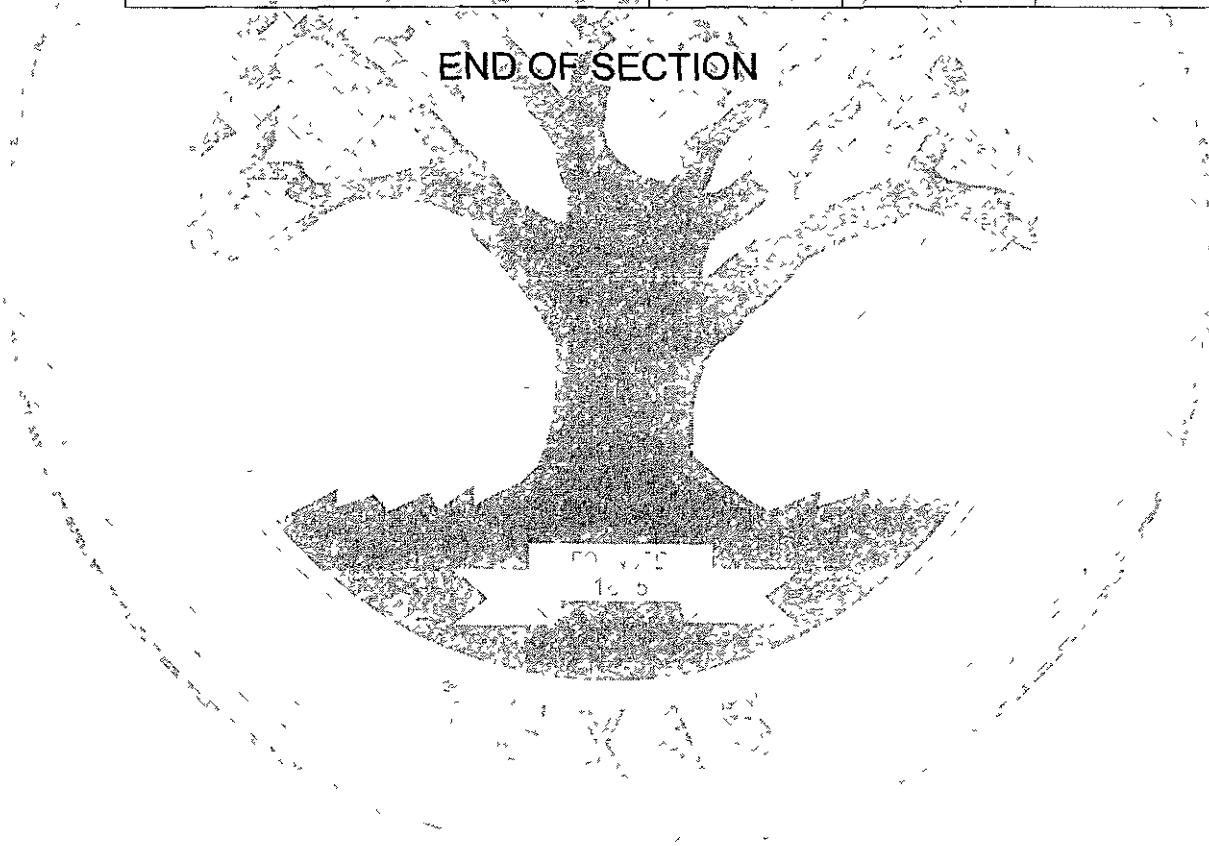
RAISED PAVEMENT MARKER CONFIGURATION			
MARKER	NOMINAL DIMENSIONS	REFLECTING FACE SLOPE	REFLECTING FACE SURFACE AREA
Type I	4" x 4" x 0.75 high	30°	3.25 sq in
	3" x 5" x 0.70 high	30°	4.00 sq in
Type II	2" x 4" x 0.40 high	30°	1.87 sq in
Type III	3" x 5" x 0.70 high	30°	4.00 sq in

4.2 RAISED PAVEMENT MARKER OPTICAL PERFORMANCE FOR TYPES I AND II

TYPE I AND II RAISED PAVEMENT OPTICAL PERFORMANCE			
SPECIFIC INTENSITY, SI, MIN.	WHITE	YELLOW	RED
Entrance Angle = 0°	15.0	9.0	3.5
Entrance Angle = 20°	6.0	3.6	1.2

4.3 RAISED PAVEMENT MARKER OPTICAL PERFORMANCE FOR TYPE III

TYPE III RAISED PAVEMENT OPTICAL PERFORMANCE			
SPECIFIC INTENSITY, SI, MIN.	WHITE	YELLOW	RED
Entrance Angle = 0°	15.0	9.0	3.5
Entrance Angle = 20°	6.0	3.6	1.2



SECTION 02860

THERMOPLASTIC PAVEMENT MARKINGS

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A This item includes white or yellow thermoplastic pavement markings for crosswalks, stop lines, lane lines, edge lines and other types of traffic controls.

1.2 MEASUREMENT AND PAYMENT

A Unit Prices

- 1 Payment for thermoplastic pavement markings is on a linear foot basis for the width of markings
- 2 Payment for words and symbols is per each word or symbol
- 3 Unit price bid for each shall be item full compensation for furnishing and placing all materials and for all manipulations, including blast cleaning, surface sealing and priming, labor, tools, equipment and incidentals necessary to complete the Work in accordance with drawings and Technical Specifications
- 5 Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum)

- 1 When Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price

1.3 REFERENCES

A ASTM – American Standards for Testing and Materials

- 1 ASTM E28 – Standard Test Methods for Softening Point of Resins Derived from Naval Stores by Ring-and-Ball Apparatus
- 2 ASTM G152 – Standard Practice for Operating Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials

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- 3 ASTM G153 – Standard Practice for Operating Enclosed Carbon Arc Light Apparatus for Exposure of Nonmetallic Materials

B CFTS – City of Friendswood Technical Specifications

- 1 Section 01270 – Measurement and Payment

- 2 Section 01330 – Submittal Procedures.

C TxDOT – Texas Department of Transportation

- 1 TxDOT Tex-822-B – Determining Refraction Index of Glass Beads.

- 2 TxDOT Tex-826-B – Water Absorption Test of Beads

- 3 TxDOT Tex-839-B – Determining Color in Reflective Material

- 4 TxDOT Tex-851-B – Evaluating the Abrasion Resistance of Pavement Marking Material.

1 4 SUBMITTALS

- A** Conform to requirements of Section 01330 – Submittal Procedures

- B** Product Data Submit Manufacturer's literature indicating product specifications and instructions for handling, installation and curing Include performance test data sheets for each product

- C** Submit material supplier's certification of compliance with the Technical Specifications.

- D** Submit proposed methods, equipment and sequence of operation for layout, surface preparation and installation

- E** Chemical Analysis Submit infrared analysis of Type B resins for each manufacturer used

PART II PRODUCTS

2 1 MATERIAL REQUIREMENTS

- A** General Requirements Especially compound Type B thermoplastic pavement marking material for use on either asphaltic or Portland

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cement concrete surfaces. Clearly mark each container to indicate color, weight, type of material and lot or batch number (consider lot or batch as each individual mix or blend that produces finished product ready for use). Package material in either suitable corrugated containers or thermal degradable plastic bags to avoid sticking during shipment or storage.

B Thermoplastic markings shall not be slippery when wet, and shall not exhibit tacky, exposed surface. Cold ductility of material shall permit normal road surface expansion and contraction without chipping or cracking. Markings shall retain their original color, dimensions and placement under normal traffic conditions at road surface temperatures of one hundred fifty-eight degrees Fahrenheit (158° F) and below.

C Prime and filler pigments shall pass U.S. Standard sieve No. 230 (0.0024 inch opening) when washed free of resins by solvent washing and meet following specific requirements for each pigment:

1 Prime Pigments: White pigment shall be Rutile Titanium Dioxide. Yellow pigment shall be a heat-resistant, double-encapsulated medium chrome yellow or other approved heat-resistant pigment.

2 Filler Pigment: Filler pigment shall be calcium carbonate, with a purity of ninety-five percent (95%).

D Binder

1 Type B – Alkyd: Use binder consisting of mixture of resins, at least one (1) of which is solid at room temperature and high boiling point plasticizers. At least one-third (1/3) of binder compositions shall be a maleic-modified glyceryl ester 012 Rosin and shall be no less than eight percent (8%) by weight of entire material formulation.

E Glass Traffic Beads: The total silica used in formulation shall be in the form of glass traffic beads meeting the following requirements:

1 Manufacture: Use glass traffic beads having the following characteristics:

- a Manufactured from glass,
- b Spherical in shape,
- c Free of sharp angular particles,

- d Free of particles showing milkiness, surface scoring or surface scratching,
 - e Water white in color
- 2 Contaminants Use glass traffic beads having the following characteristics:
- a Containing less than one-quarter of one percent (0.25%) moisture by weight,
 - b Free of trash, dirt, etc;
 - c Showing no evidence of objectionable static electricity when flowing through traffic-bead dispenser
- 3 Gradation.
- a Sieve Analysis Glass traffic beads shall meet gradation requirements specified in TABLE 4.1 — GLASS TRAFFIC BEADS SIEVE ANALYSIS, in this Section
 - b Irregular Particles Glass traffic beads, retained on screen used to determine gradation requirements, shall contain not more than thirty percent (30%) (by weight) of irregular particles
- 4 Index of Refraction Glass traffic beads, when tested by TxDOT Tex-822-B, using liquid immersion method at seventy-seven degrees Fahrenheit (77° F) shall show index of refraction within range of 1.50 to 1.53.
- 5 Wetting Use glass traffic beads capable of being readily wet with water when tested in accordance with TxDOT Tex-826-B
- 6 Stability Use glass traffic beads showing no tendency toward decomposition, surface etching, change in retro-reflective characteristics or change in color after
- a One hour (1 Hr) exposure to concentrated hydrochloric acid at seventy-seven degrees Fahrenheit (77° F),
 - b Twenty-four hour (24 Hr) exposure to weak alkali,

- c One hundred hours (100 Hrs) of Weather-O-Meter exposure, in accordance with ASTM G152 and ASTM G153

2.2 FINISHED PRODUCT REQUIREMENTS

- A **Physical Characteristics** Finished thermoplastic pavement markings material shall be free-flowing granular material, unless otherwise shown on the Drawings. Material shall remain in free-flowing state in storage at temperatures of one hundred degrees Fahrenheit (100° F) or less. Materials shall be readily sprayed through nozzles commonly used on thermoplastic spray equipment at temperatures between four hundred one degree Fahrenheit (401° F) to four hundred twenty-five degrees Fahrenheit (425° F).
- B **Toxicity** At temperatures up to and including four hundred forty-six degrees Fahrenheit (446° F), materials shall not give off fumes which are toxic and otherwise injurious to persons, animals or property.
- C Material shall not break down or deteriorate when held at four hundred one degrees Fahrenheit (401° F) for four hours (4 Hrs).
- D **Temperature versus viscosity characteristics** of material in plastic state shall remain constant throughout up to four reheatings at four hundred one degrees Fahrenheit (401° F) and from batch to batch.
- E Material shall not be adversely altered by contact with sodium chloride, calcium chloride or other similar chemicals on or used on, roadway surface, by contact with oil content of pavement materials or by contact from oil dropping from traffic.
- F **Softening Point** After heating thermoplastic materials for two hours (2 Hrs) at four hundred degrees Fahrenheit (400° F) Type B Alkyd material shall have softening point greater than 194 degrees Fahrenheit when tested in accordance with ASTM E28-58T – Ball and Ring Method.
- G **Color** CIE chromaticity coordinates of materials, when determined in accordance with TxDOT Tex-839-B, shall fall within area having following corner points and shall meet luminosity requirements specified in TABLE 4.2 – CIE CHROMATICITY COORDINATE CORNER POINTS LUMINISITY REQUIREMENTS, in this Section. Material shall meet above specified color requirements, before and after seventy hours (70 Hrs) of exposure in Weather-O-Meter (Atlas, Sunshine Type) fitted with [eighteen minutes (18 Min) sunshine and rain to one hundred two minutes (102 Min) of sunshine] cyclic gear. Prepare panels for

testing with material as supplied

- H Abrasion Thermoplastic pavement marking materials shall have loss between four grams (4 g) and twelve grams (12 g) when tested for abrasion in accordance with TxDOT Tex-851-B Test according to steps one (1) through eight (8) of procedure utilizing test parameters specified in TABLE 4 3 – ABRASION TEST FOR THERMOPLASTIC PAVEMENT MARKING MATERIALS, in this Section
- I Uniformity Manufacture material so that, when sampled in accordance with TxDOT Manual of Testing Procedures, a one hundred gram (100 g) sample shall be representative of the batch or lot of material
- J When applied one-eighth inch (1/8 In) thick, setting time shall not exceed characteristic straight-line curve lower limit which is four minutes (4 Min) at fifty-nine degrees Fahrenheit (59° F) road surface temperatures and upper limit of which is ten (10) minutes at ninety degrees Fahrenheit (90° F) road surface temperature Both temperatures are to be measured at a maximum relative humidity of ninety percent (90%)

2 3 FORMULAE

- A Type B – Alkyd Thermoplastic Marking shall be as specified in TABLE 4 4 – TYPE B ALKYD THERMOPLASTIC MARKING FORMULA, in this Section

PART III EXECUTION

3 1 GENERAL

- A Spray apply pavement marking or extrude hot material to pavement surface unless application method is specified on the Drawings
- B Provide continuous mixing and agitation of material Provide clean, square, marking ends Do not use pans, aprons or similar appliances which die overruns
- C Provide thermometer capable of measuring temperature of pavement marking material
- D Use automatic bead dispenser attached to pavement marking equipment in manner that beads are dispensed uniformly and almost instantly upon marking as marking is being applied to road surface Rate of application shall be sufficient to achieve retro-reflective characteristics specified Provide automatic cut-off control for bead

dispenser, synchronized with cut-off of pavement marking application process

- E Place markings in accordance with approved traffic control plan so that minimal interruption to traffic flow is achieved, or so that driver confusion is minimized. Protect newly-installed pavement markings from damage by traffic.
- F Apply pavement markings onto clean, dry pavement having road surface temperature above sixty degrees Fahrenheit (60° F). When pavement marking application is by spray and operations cease for five minutes (5 Min) or more, flush spray head by spraying pavement marking material into pan or similar container until material is proper temperature for application.
- G Use markings that are completely reflectorized internally and externally.
- H Use crew experienced in the work of installing pavement markings and supply all equipment and materials necessary for placement of pavement markings.
- I Apply material within temperature limits recommended by manufacturer.
- J Prior to placement of thermoplastic material, properly prepare pavement with primer.

3.2 LAYOUT

- A Place pavement markings in proper alignment with guidelines established on roadway. Do not deviate from alignment established greater than two inches (2 In). Do not deviate in alignment of marking being placed greater than one inch (1 In) per two hundred feet (200 Ft) of marking and do not deviate abruptly.
- B Place additional markings required to achieve alignment specified throughout both straight and horizontally curved sections of roadway. Additional markings placed on roadway for alignment purposes shall be temporary in nature and shall not be established as permanent marking on roadway. Materials used for alignment markings and equipment used to place markings shall be approved by the Project Manager.

3.3 SURFACE PREPARATION

- A Clean pavement by sandblasting and prepare in accordance with recommendations of thermoplastic material manufacturer and to

satisfaction of the Project Manager prior to placement of markings
Surface scarification can be used with prior approval of the Project Manager

- B Use cleaning methods approved by the Project Manager that completely remove contaminants, loose materials and conditions deleterious to proper adhesion. Do not clean Portland cement concrete surfaces by grinding
- C Further prepare Portland cement concrete surfaces after cleaning by completely sealing with epoxy or methyl methacrylate sealer as recommended by thermoplastic material manufacturer. Place sealer sufficiently in advance of thermoplastic to allow release of all solvents
- D Prime asphaltic surfaces with sealer as recommended by thermoplastic material manufacturer and based on surface conditions. Include adhesive or adhesion promoter when asphaltic surfaces exhibit polished aggregate

3.4 INSTALLATION

- A Install in widths of four inches (4 in), six inches (6 in), eight inches (8 in) or twelve inches (12 in) or shape as otherwise shown on the Drawings. Tolerances in width shall not exceed one-eighth inch (1/8 in). Tolerance shall not exceed one-quarter inch (1/4 in) in case of undulation in pavement
- B Material shall not prohibit adhesion of other thermoplastic markings if, at some future time, new markings are placed over or across existing materials.
- C Maintain uniform thickness of each pavement marking. The minimum thickness of markings, as measured above plane formed by pavement surface, shall not be less than one-eighth inch (1/8 in), one hundred twenty-five mils (125 mils), unless shown otherwise on the Drawings. The maximum thickness shall be three-sixteenths inch (3/16 in). Supply device approved by the Project Manager to measure thickness of applied extruded markings

3.5 TESTING

- A Maintain uniform cross section, density, quality and thickness for markings. Markings shall be uniform throughout their thickness. Use applied markings that are ninety-five percent (95%) free of holes and voids and free of blisters for a minimum of sixty days (60 D) after application

PART IV TABLES

4.1 GLASS TRAFFIC BEADS SIEVE ANALYSIS

OPENINGS U.S. STANDARD SIEVES	PERCENT PASSING
No 20	95 – 100
No 30	80 – 95
No 50	15 – 35
No 100	0 – 4

4.2 CIE CHROMATICITY COORDINATE CORNER POINTS LUMINISITY REQUIREMENTS

	POINT 1	POINT 2	POINT 3	POINT 4	
Color	X Y	X Y	X Y	X Y	Luminosity
White {to 12" White}	0.290 – 0.315	0.310 – 0.295	0.350 – 0.340	0.330 – 0.360	Minimum 65

4.3 ABRASION TEST FOR THERMOPLASTIC PAVEMENT MARKING MATERIALS

THERMOPLASTIC MARKINGS TEST PARAMETERS	
TEST PARAMETERS	VALUE
Test Distance	5 Inches
Blast Pressure	40 psi
Sample Angle	10° and 122 gram blast media
Blast Media	1200 grams

4.4 TYPE B – ALKYD THERMOPLASTIC MARKING FORMULA

MATERIAL	POUNDS
Binder	18 – 23
Titanium Dioxide	12 – 15
Calcium Carbonate	20 – 42
Glass Traffic Beads	30 – 45
TOTAL	100

END OF SECTION

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SECTION 02865

TRAFFIC SIGNS

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Requirements for furnishing and installing signs for traffic control

1.2 MEASUREMENT AND PAYMENT

A Unit Prices:

- 1 Payment for traffic signage is on a per each basis per sign type
- 2 Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum):

- 1 If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price

1.3 REFERENCES

A ASTM – American Society for Testing and Materials

- 1 ASTM A153 – Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
- 2 ASTM A307 – Standard Specification for Carbon Steel Bolts and Studs, 60,000 PSI Tensile Strength
- 3 ASTM B209 – Standard Specification for Aluminum and Aluminum Alloy Sheet and Plate
- 4 ASTM B449 – Standard Specification for Chromates on Aluminum
- 5 ASTM B695 – Standard Specification for Coatings of Zinc Mechanically Deposited on Iron and Steel
- 6 ASTM D4956 – Standard Specification for Retroreflective

Sheeting for Traffic Control

B CFTS – City of Friendswood Technical Specifications

- 1 Section 01270 – Measurement and Payment
- 2 Section 01330 – Submittal Procedures
- 3 Section 01430 – Project Signage.
- 4 Section 03300 – Structural Concrete.

C. TxDOT – Texas Department of Transportation

- 1 Department of Materials Specification DMS-7110 Aluminum Sign Blanks
- 2 Department of Materials Specification DMS-8300 Sign Face Materials.
- 3 Standard Specifications for Construction of Highways, Streets and Bridges Item 636 – Aluminum Signs (Type A)
- 4 Texas Manual on Uniform Traffic Control Devices (TMUTCD), Latest Edition

1.4 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures
- B Submit manufacturer's product data concerning following materials for approval:
 - 1 Sign Blanks.
 - 2 Facing materials
 - 3 Mounting hardware and poles.
- C Submit manufacturer's certification that all signage meets requirements in this Technical Specification

PART II PRODUCTS

2.1 ALUMINUM SIGN BLANKS

- A Aluminum sheet or coil sign blanks shall meet all requirements of TxDOT Standards Specification Item 636, TxDOT DMS-7110 Aluminum Sign Blanks and ASTM B209, Alloys 6061-T-6 or 5052-H38
- B Sign blanks made from sheet or coil shall be free of buckles, warps, dents, cockles, burrs and other defects and must be a plane surface. Sign blank thickness shall be eight-hundredths inch (0.08 in) in thickness.
- C Treat all sign blanks fabricated from sheet and coil with a chromate chemical process resulting in a coating meeting the requirements of ASTM B449, Class 2. The coating shall be light colored, tight and free from powdery residues.
- D Manufacturer shall furnish mill test reports for aluminum sheet or coil which reflect the chemical and physical properties of the aluminum.

2.2 SIGN MOUNTING HARDWARE AND ADHESIVES

- A All material for sign posts and mounting hardware shall be galvanized steel and be in compliance with ASTM A307, ASTM A153 and ASTM B695.
- B Sign posts shall be two and three-eighths inches (2-3/8 in) in outside diameter galvanized steel.
- C Sign Post mounting shall be "Pos-Lok" or equal system consisting of sixteen inch (16 in) sleeve and removable wedge.
- D Pipe and post clamp castings and miscellaneous fasteners shall be verified by manufacturer's certifications stating that the material meets all applicable requirements.

2.3 FACE MATERIALS

- A All materials are to be certified by lot or shipment that material supplied meets requirements listed in these Specifications. Material shall also comply with ASTM D4956 and TxDOT DMS 8300.
- B Sign face materials shall be processed, applied and stored according to the manufacturer's recommendations. Sign face materials shall

perform for a minimum of ten years (10 Yrs)

- C The Project Manager shall reject any sign and or face material for the following reasons

- 1 Cracks discernible with the unaided eye from the drivers position while in an outside lane at a distance of fifty feet (50 Ft) or greater from the sign
- 2 Peeling in excess of one-quarter inch (1/4 In)
- 3 Shrinkage in excess of one-eighth inch (1/8 In) total per forty-eight inches (48 In) of sheeting width
- 4 Fading or loss of color to the extent that color fails to meet the requirements of ASTM D4956 or TxDOT DMS 8300
- 5 In non-construction zone – loss of reflectivity to a level eighty percent (80%) of the minimum values as specified in ASTM D4956
- 6 In construction zone – loss of reflectivity to a level sixty percent (60%) of the minimum values as specified in ASTM D4956
- 7 Face consists of pressure-activated material of either diamond or prismatic vinyl

2.4 STREET NAME SIGNS

- A Street name signs shall conform to the applicable City of Friendswood Standard Details, and to TxDOT Specifications where applicable.

PART III EXECUTION

3.1 INSTALLATION

- A All signs and their installation shall be accordance with the latest edition of the TMUTCD Texas Manual on Construction Traffic Control Devices (TMUTCD)
- B All signs shall be installed at the locations shown on the Drawings or as directed by the Project Manager
- C Sign Posts shall be set a minimum of three feet (3 Ft) in depth in a twelve inch (12 In) diameter hole filled with concrete as specified in

Section 03300 – Structural Concrete.

- D All installation and materials shall conform to all applicable requirements specified in Section 01430 – Project Signage.

END OF SECTION



SECTION 02900

TURF ESTABLISHMENT

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Minimum requirements for acceptance of grass cover for erosion control
- B Requirements for preparing ground, providing and planting St Augustine grass, providing and distributing Fertilizer and subsequent watering.

1.2 MEASUREMENT AND PAYMENT

A Unit Prices

- 1 Payment for Hydromulch seeding is on an acre basis
- 2 Payment for sodding is on a square yard basis
- 3 Refer to Section 01270 – Measurement and Payment for unit price procedures

B Stipulated Price (Lump Sum)

- 1 If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price

- C Payment for all seeding either Hydromulch or Sodding shall be only to the extent of the limits in the Drawings. The Contractor shall replace all damaged ground cover outside of the limits shown on the Drawings at no cost to the City

1.3 SUBMITTALS

- A The following submittals shall be made prior to beginning of turf establishment
 - 1 Vegetative Plan which shall include
 - a Seed bed preparation

- b Method of seeding
- c Seed
- d Species
- e Rate of application
- f Optimum planting dates
- g Seed quality requirements
- h Fertilizer
- i Nutrient ration required
- j Schedule of application
- k Rate of application
- l Method of applications
- m Weed control methods

2 Extended maintenance plan

1.4 REFERENCES

- A CFTS – City of Friendswood Technical Specifications.
 - 1 Section 01270 – Measurement and Payment
 - 2 Section 01330 – Submittal Procedures
 - 3 Section 02905 – Topsoil
 - 4 Section 02910 – Hydromulch Seeding
 - 5 Section 02915 – Sodding

PART II PRODUCTS

2.1 TOPSOIL

- A Topsoil that is either stripped and stockpiled or hauled in shall conform to Section 02905 – Topsoil

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2.2 SOD

- A Sodding shall conform to Section 02915 – Sodding

2.3 Hydromulch Seed

- A. Hydromulch seed shall conform to Section 02910 – Hydromulch Seeding. Hydromulch seeding shall be appropriate for the season in which it is being applied.

2.4 FERTILIZER

- A. Fertilizer shall be of nutrient ratio specified in Vegetative Plan. Bagged or bulk fertilizer will be acceptable. If bulk fertilizer is used, Vendor shall sign Invoice to certify analysis. Only free-flowing uncontaminated fertilizer will be acceptable. Fertilizer shall conform to the specifications of Sections 02910 – Hydromulch Seeding and 02915 – Sodding.

PART III: EXECUTION

3.1 GENERAL

- A. Turf establishment shall begin as soon as practically and economically feasible after approval by the Project Manager.
- B. Proceed with seeding when environmental conditions are favorable.
- C. Repair erosion occurring after topsoil placement but before beginning turf establishment.

3.2 TOPSOIL

- A. Strip topsoil and stockpile in conformance with Section 02905 – Topsoil
- B. Place topsoil as shown in the Drawings to a depth of four inches (4 in) loose.
- C. Do not under any circumstances, start fertilization and seeding before the topsoil has been approved by either a Landscape Architect or the Project Manager or both. Failure to get approval shall have all seeding and topsoil removed and replaced at no cost to the City.

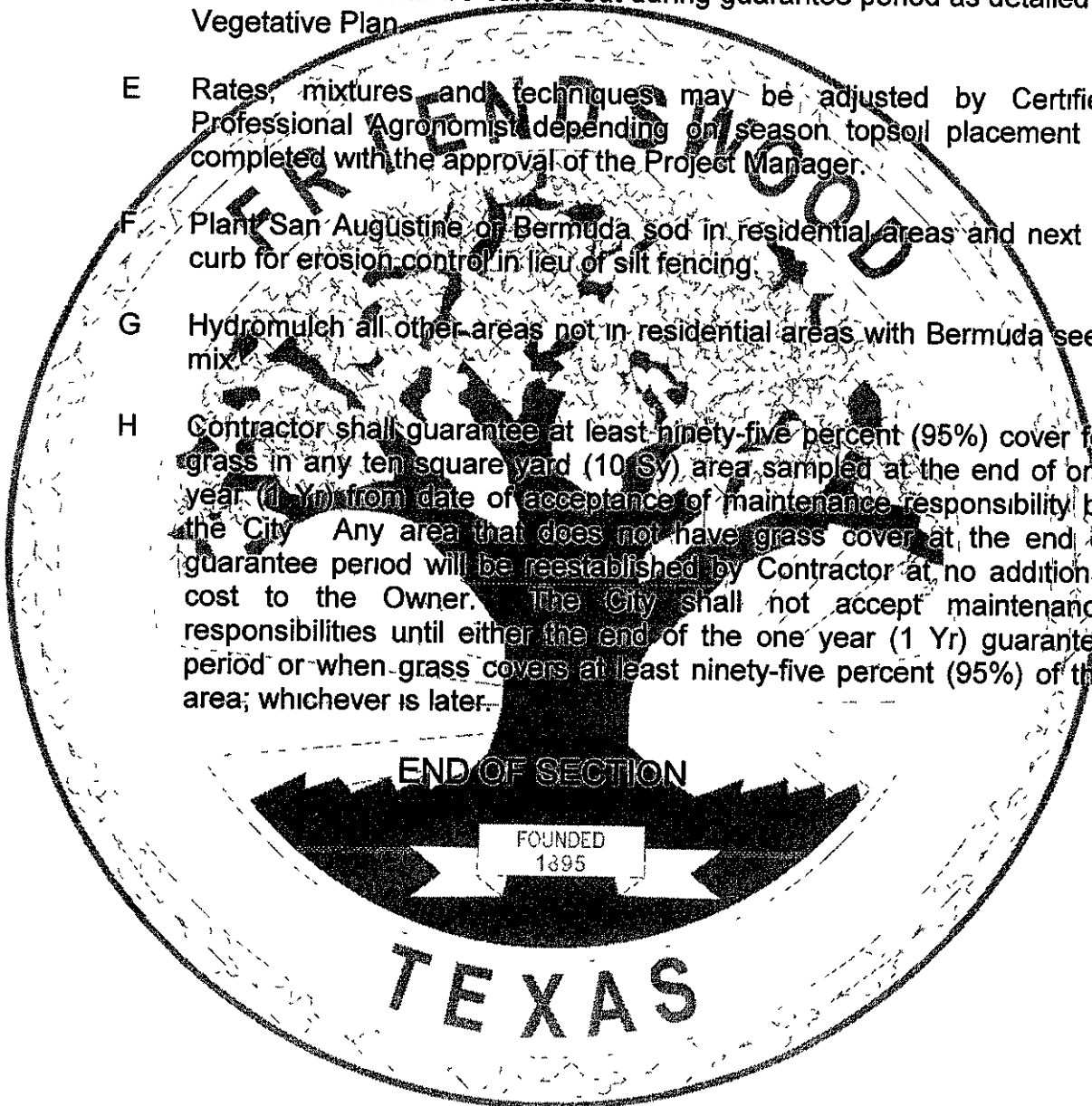
3.2 PLANTING OPERATIONS

- A. After topsoil placement and approval of the Project Manager, apply

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fertilizer at a rate of eighty (80) – eighty (80) per acre.

- B Disc fertilizer into seedbed
- C Roll seedbed to compact soil
- D Weed control shall be carried out during guarantee period as detailed in Vegetative Plan.
- E Rates, mixtures and techniques may be adjusted by Certified Professional Agronomist depending on season topsoil placement in completed with the approval of the Project Manager.
- F Plant San Augustine or Bermuda sod in residential areas and next to curb for erosion control in lieu of silt fencing
- G Hydromulch all other areas not in residential areas with Bermuda seed mix.
- H Contractor shall guarantee at least ninety-five percent (95%) cover for grass in any ten square yard (10 Sy) area sampled at the end of one year (1 Yr) from date of acceptance of maintenance responsibility by the City. Any area that does not have grass cover at the end of guarantee period will be reestablished by Contractor at no additional cost to the Owner. The City shall not accept maintenance responsibilities until either the end of the one year (1 Yr) guarantee period or when grass covers at least ninety-five percent (95%) of the area; whichever is later.



SECTION 02905

TOPSOIL

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Furnishing and placing topsoil for finish grading and for seeding, sodding and planting.

1.2 MEASUREMENT AND PAYMENT

A Unit Prices

1. No separate payment shall be made for topsoil under this Section. Include payment in Section 02910 – Hydromulch Seeding or Section 02915 – Sodding.
2. Refer to Section 01270 – Measurement and Payment for unit price procedures

B Stipulated Price (Lump Sum)

1. If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price

1.3 REFERENCES

A CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment
2. Section 01330 – Submittal Procedures
3. Section 01580 – Waste Material Disposal
4. Section 02135 – Excavation for Roadway
5. Section 02140 – Utility Backfill Materials
6. Section 02910 – Hydromulch Seeding
7. Section 02915 – Sodding

PART II PRODUCTS

2.1 TOPSOIL

- A Topsoil shall be fertile, friable, natural sandy loam surface soil obtained from excavation or borrow operations having characteristics specified in TABLE 4.1 – TOPSOIL CHARACTERISTICS in this Section.
- B Topsoil shall be reasonably free of subsoil, clay lumps, weeds, non-soil materials and other litter or contamination. Topsoil shall not contain roots, stumps and stones larger than two inches (2 In).
- C Obtain topsoil from naturally well-drained areas where topsoil occurs at a minimum depth of four inches (4 In) and has similar characteristics to that found at placement site. Do not obtain topsoil from areas infected with growth of or reproductive parts of nut grass or other noxious weeds.

PART III EXECUTION

3.1 EXAMINATION

- A Excavate topsoil for esplanades and areas to receive grass or landscaping from areas to be further excavated. Stockpile in area approved by the Project Manager.
- B Stockpile topsoil to depth not exceeding eight feet (8 Ft). Cover to protect from erosion.

3.2 TOPSOIL EXCAVATION

- A Conform to excavation and stockpiling requirements of Section 02135 – Excavation for Roadway.

3.3 PLACEMENT

- A Place no topsoil until subgrade has been approved. For areas to be seeded or sodded, scarify or plow existing material to a minimum depth of four inches (4 In) or as indicated on the Drawings. Remove vegetation and foreign inorganic material. Place four inches (4 In) of topsoil on loosened material and roll lightly with appropriate lawn roller to consolidate topsoil.
- B Increase depth of topsoil to six inches (6 In) when placed over sand bedding and backfill materials specified in Section 02140 – Utility

Backfill Materials

- C For areas to receive shrubs or trees, excavate existing material and place topsoil to depth and dimensions shown on the Drawings
- D Remove spilled topsoil from curbs, gutters and, paved areas and dispose of excess topsoil in accordance with requirements of Section 01580 – Waste Material Disposal.
- E Place topsoil to promote good drainage and compact with light roller. Water topsoil after placement until saturated for a minimum depth six inches (6 in), fill in and recompact areas of settlement

3.4 PROTECTION

- A Protect topsoil from wind and water erosion until planting is completed

PART IV TABLES

4.1 TOPSOIL CHARACTERISTICS

TOPSOIL CHARACTERISTICS	
CHARACTERISTIC	VALUE
pH Value	Between 5.5 and 6.5
Liquid Limit	50 or Less
Plasticity Index	20 or Less
Gradation	Maximum of 10% passing No. 200 Sieve

END OF SECTION

SECTION 02910

HYDROMULCH SEEDING

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Seeding, fertilizing, mulching and maintenance of areas indicated on the Drawings

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices:

- 1 Payment for Hydromulch seeding is on an acre basis
- 2 Refer to Section 01270 – Measurement and Payment for unit price procedures.

B. Stipulated Price (Lump Sum)

- 1 If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price

1.3 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures
- B Submit certification from supplier that each type of seed conforms to these Specifications and requirements of Texas Seed Law. Certification shall accompany seed delivery.
- C Submit certificate stating that fertilizer complies with these Specifications and requirements of Texas Fertilizer Law

1.4 REFERENCES

A CFTS – City of Friendswood Technical Specifications

- 1 Section 01270 – Measurement and Payment
- 2 Section 01330 – Submittal Procedures
- 3 Section 01580 – Waste Material Disposal

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4 Section 02905 – Topsoil

5 Section 02915 – Sodding

B Texas Seed Law

C USDA – United States Department of Agriculture rules and regulations of Federal Seed Act

PART II PRODUCTS

2.1 MATERIALS

A Topsoil. Conform to material requirements of Section 02905 – Topsoil

B Seed. Conform to U.S. Department of Agriculture rules and regulations of Federal Seed Act and Texas Seed Law. Seed shall be certified ninety percent (90%) pure and furnish ninety percent (90%) germination and meet following requirements:

1. Rye. Fresh, clean, Italian rye grass seed (lohium multi-florum), mixed in labeled proportions. As tested, the minimum percentages of impurities and germination must be labeled. Deliver in original unopened containers.

2. Bermuda. Extra-fancy, treated, lawn type common Bermuda (Cynodon dactylon). Deliver in original, unopened container showing weight, analysis, name of vendor and germination test results.

3. Wet, moldy or otherwise damaged seed shall not be accepted.

4. Seed requirements, application rates and planting dates are as specified in TABLE 4.1 – SEEDING CONDITIONS in this Section.

C Fertilizer. Dry and free flowing, inorganic, water soluble commercial fertilizer, which is uniform in composition. Deliver in unopened containers which bear manufacturers guaranteed analysis. Caked, damaged or otherwise unsuitable fertilizer shall not be accepted. Fertilizer shall contain the minimum percentages of elements as specified in TABLE 4.2 – MINIMAL FERTILIZER ELEMENTS in this Section.

D Mulch

- 1 Virgin wood cellulose fibers from whole wood chips having a minimum of twenty percent (20%) fibers forty-two hundredths inches (0 42 In) in length and one hundredth inch (0 01 In) in diameter
- 2 Cellulose fibers manufactured from recycled newspaper and meeting same fiber content and size as for cellulose fibers from wood chips
- 3 Dye mulch green for coverage verification purposes

E Soil Stabilizer "Terra Tack 1" or approved equal

F Weed control agent Pre-emergent herbicide for grass areas, such as "Benefin," or approved equal.

PART III EXECUTION

3 1 PREPARATION

A Place and compact topsoil in accordance with requirements of Section 02905 – Topsoil

B Dispose of Objectionable and Waste Materials in accordance with Section 01580 – Waste Material Disposal

3 2 APPLICATION

A Seed Apply uniformly at rates given in TABLE 4 1 – SEEDING CONDITIONS in this Section, for type of seed and planting date

B Fertilizer Apply uniformly at rate of five hundred pounds (500 Lbs) per acre

C Mulch. Apply uniformly at rate of fifty pounds (50 Lbs) per one thousand square feet (1000 Sf)

D Soil Stabilizer Apply uniformly at rate of forty pounds (40 Lbs) per acre

E Weed Control Agent Apply at manufacturer's recommended rate prior to hydro mulching

F Sod Lay single row of sod along perimeter where top soil and

pavement intersect Apply in conformance to Section 02915 – Sodding

- G Suspend operations under conditions of drought, excessive moisture, high winds or extreme or prolonged cold Obtain the Project Manager's approval before resuming operations

3.3 MAINTENANCE

- A Maintain grassed areas for a minimum of ninety days (90 D) or as required to establish an acceptable lawn For areas seeded in fall, continue maintenance following spring until acceptable lawn is established
- B. Maintain grassed areas by watering, fertilizing, weeding and trimming
- C Repair areas damaged by erosion by re-grading, rolling and replanting
- D Reseed small, sparse grass areas When sparse areas exceed ten percent (10%) of planted area, reseed by hydro mulch
- E Mow grass when height reaches three and one-half inches (3-1/2 In) or greater on average before final acceptance Mow to height of two and one-half inches (2-1/2 In).

PART IV TABLES

4.1 SEEDING CONDITIONS

GRASS SEEDING CONDITIONS		
TYPE	APPLICATION RATE lbs/ac	PLANTING DATE
Hulled Common Bermuda 88/98	40	Jan 1 to Mar 31
Unhulled Common Bermuda 88/98	40	
Hulled Common Bermuda 88/98	40	Apr 1 to Sep 30
Hulled Common Bermuda 88/98	40	Oct 1 to Dec 31
Unhulled Common Bermuda 88/98	40	
Annual Rye Grass (Gulf)	30	

4.2 MINIMAL FERTILIZER ELEMENTS

MINIMAL FERTILIZER ELEMENT PERCENTAGES	
ELEMENT	PERCENTAGE
Nitrogen	10%
Phosphoric Acid	20%
Potash	10%



SECTION 02915

SODDING

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Restoration of existing lawn areas disturbed by construction shall be by installation of new sod
- B Planting of sod within areas designated on the Drawings for purpose of surface stabilization, channel stabilization or vegetation buffer strips
- C Sod is defined as blocks, squares, strips of turfgrass and adhering soil used for vegetative planting. To be placed edge to edge for complete coverage
- D Lawn is defined as ground covered with fine textured grass kept neatly mowed

1.2 MEASUREMENT AND PAYMENT

- A Unit Prices
 - 1 Payment for sodding is on a square yard basis
 - 2 Refer to Section 01270 – Measurement and Payment for unit price procedures
- B Stipulated Price (Lump Sum)
 - 1 If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price

1.3 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures

1.4 REFERENCES

- A CFTS – City of Friendswood Technical Specifications
 - 1 Section 01270 – Measurement and Payment

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- 2 Section 01330 – Submittal Procedures
- 3 Section 01580 – Waste Material Disposal
- 4 Section 02905 – Topsoil

B Structural Pest Control Board of the State of Texas

1 5 QUALITY ASSURANCE

- A Sod only when weather and soil conditions are deemed by the Project Manager to be suitable for proper placement
- B Water and fertilize new sod
- C Guarantee sod to be growing thirty days (30 D) after substantial completion
- D Maintenance Period
 - 1 Begin maintenance immediately after each section of grass sod is installed and continue for thirty day (30 D) period from date of substantial completion
 - 2 Re-sod unacceptable areas
 - 3 Water, fertilize, control disease and insect pests, mow, edge, replace unacceptable materials and perform other procedures consistent with good horticultural practice to ensure normal, vigorous and healthy growth. Install disease control within guidelines set forth by Structural Pest Control Board of the State of Texas
- E Notify the Project Manager ten days (10 D) before end of maintenance period for inspection

PART II PRODUCTS

2 1 SOD

- A Species Bermuda (Cynodon Dactylon), Buffalo (Buchloe Dactyloides) or St Augustine (Stenotaphrum Secundatum) Gulf Coast variety to match existing sod
- B Contents ninety-five percent (95%) permanent grass suitable to

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climate in which it is to be placed; not more than five percent (5%) weeds and undesirable grasses; good texture, free from obnoxious grasses, roots, stones and foreign materials

- C. Size: twelve inch (12 In) wide strips, uniformly two inches (2 In) thick with clean-cut edges.
- D Sod is to be supplied and maintained in healthy condition as evidenced by grass being normal green color.

2.2 FERTILIZER

- A. Available nutrient percentage by weight: twelve percent (12%) nitrogen, four percent (4%) phosphoric acid and eight percent (8%) potash; or fifteen percent (15%) nitrogen, five percent (5%) phosphoric acid and ten percent (10%) potash.

2.3 WEED AND INSECT TREATMENT

- A. Provide acceptable treatment to protect sod from weed and insect infestation. Submit treatment method to the Project Manager for approval. Install insect and disease control within guidelines set forth by Structural Pest Control Board of the State of Texas.

2.4 WATER

- A. Potable, available on-site through the Contractor's water trucks. The Contractor may use the City of Friendswood hydrants when water use is measured and verified. Do not use private resident's water.

2.5 BANK SAND

- A. Free of clay lumps, roots, grass, salt or other foreign material.

PART III: EXECUTION

3.1 PREPARATION

- A Verify that soil placement and compaction have been satisfactorily completed. Verify that soil is within allowable range of moisture content.
- B Top soil shall be free of weeds and foreign material immediately before sodding.
- C Do not start the Work until conditions are satisfactory. Do not start the

Work during inclement or impending inclement weather

- D Rake areas to be sodded smooth, free from unsightly variations, bumps, ridges or depressions
- E Two inches (2 In) of top soil shall be placed for sodding preparation in conformance of Section 02905 – Topsoil over areas to be sodded prior to planting of sod.
- F. Apply fertilizer at rate of twenty-five pounds (25 Lbs) per 1000 square feet. Apply after raking soil surface and not more than forty-eight hours (48 Hrs) prior to laying sod. Mix thoroughly into upper two inches (2 In) of soil. Lightly water to aid in dissipation of fertilizer.

3.2 APPLICATION

- A Full Sodding: Lay sod with closely fitted joints leaving no voids and with ends of sod strips staggered. Lay sod within twenty-four hours (24 Hrs) of harvesting.
- B. On slopes two to one (2:1) and steeper, lay sod perpendicular to slope and secure every row with wooden pegs at a maximum of two feet (2 Ft) on center. Drive pegs flush with soil portion of sod.
- C Prior to placing sod, on slopes three to one (3:1) or where indicated, place Hold/Gro or Roll-Lite or equal over topsoil. Securely anchor in place with posts sunk firmly into ground at a maximum of sixteen feet (16-Ft) on center along pitch of slope and equal to width of wire mesh horizontally across slopes.
- D. After sod is laid, irrigate thoroughly to secure six inch (6 In) minimum penetration into soil below sod.
- E Tamp and roll sod with approved equipment to eliminate minor irregularities and to form close contact with soil bed immediately after planting and watering. Submit type of tamping and rolling equipment to be used to the Project Manager for approval, prior to construction.

3.3 MAINTENANCE

A Watering.

1. Water lawn areas once a day with a minimum of one-half inch (1/2 In) of water for first three weeks (3 Wk) after area is sodded

2. After three week (3 Wk) period, water twice a week with three-quarters inch (3/4 In) of water each time unless comparable amount has been provided by rain
3. Make weekly inspections to determine moisture content of soil unless soil is in frozen condition
4. Water in afternoon or at night to enable soil to absorb a maximum amount of water with a minimum evaporation

B. Mowing

1. Mow sod at intervals which shall keep grass height from exceeding three and one-half inches (3-1/2 In).
2. Set mower blades at two and one-half inches (2-1/2 In).
3. Do not remove more than one-half (1/2) of grass leaf surface
4. Mow sodded areas requiring mowing within one month (1 Mo) after installation with light-weight rotary type mower. Mow sod only when dry and not in saturated or soft condition.
5. Remove grass clippings during or immediately after mowing.

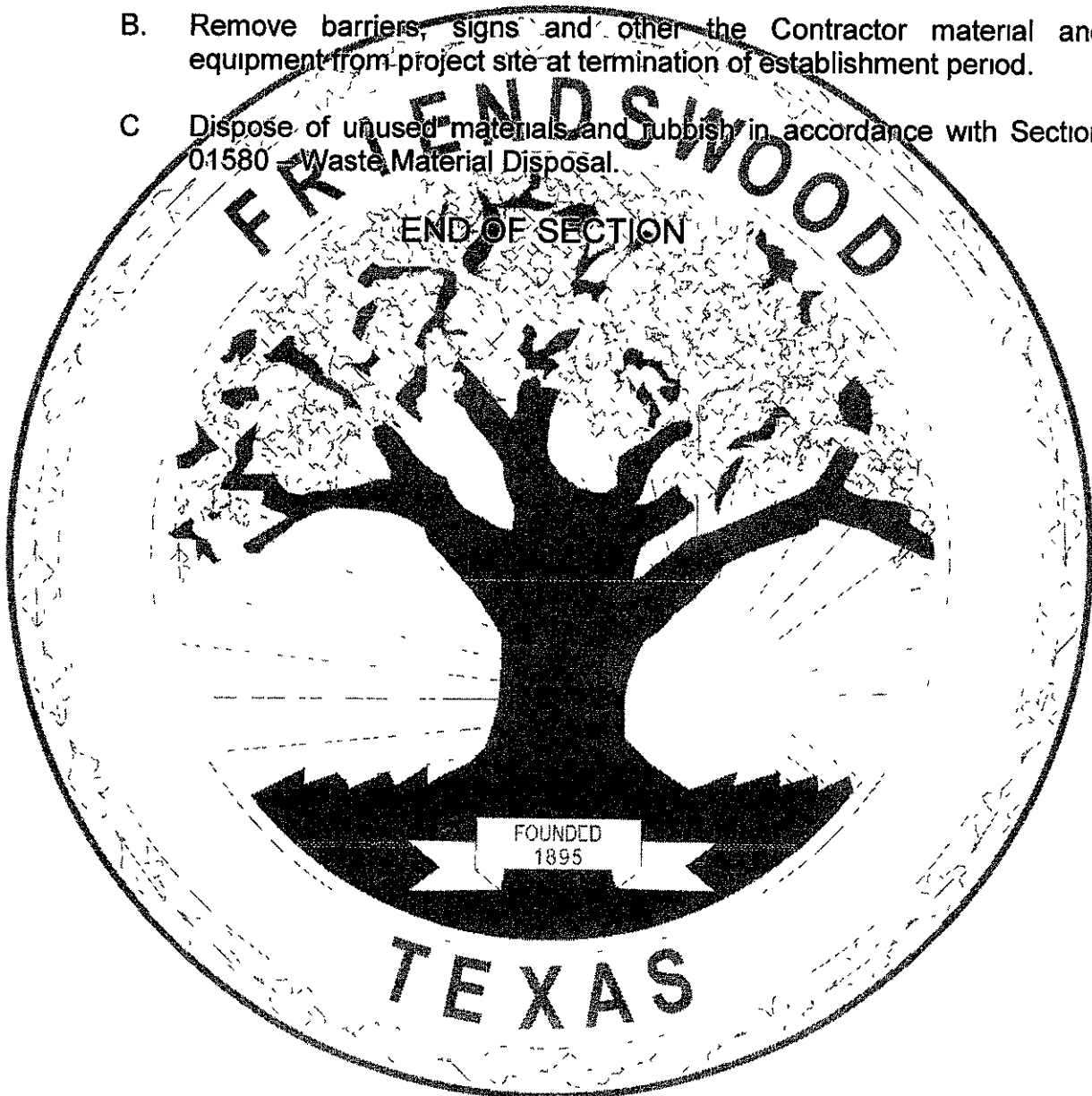
C. Fertilizer and Pest Control

1. — Evenly spread fertilizer composite at rate of forty pounds (40 Lbs) per five thousand square feet (5000 Sf) or as recommended by manufacturer. Do not place fertilizer until two weeks (2 Wks) after placement of sod.
2. Restore bare or thin areas by topdressing with mix of fifty percent (50%) sharp sand and fifty percent (50%) sphagnum peat moss.
3. Apply mixture one-quarter inch (1/4 In) to one-half inch (1/2 In) thick.
4. Treat areas of heavy weed and insect infestation as recommended by treatment manufacturer

- D** Restrict all traffic from sodded areas until sod is established or for a minimum of ten days (10 D) during growing season. Use wood lath and plastic tape to cordon sodded areas. Maintain tape and lath throughout for a minimum of thirty days (30 D) during growing season

3 4 CLEANUP

- A During course of planting, remove excess and waste materials, keep lawn areas clean and take precautions to avoid damage to existing structures, plants, grass and streets
- B. Remove barriers, signs and other the Contractor material and equipment from project site at termination of establishment period.
- C Dispose of unused materials and rubbish in accordance with Section 01580 - Waste Material Disposal.



SECTION 02920

TREE PLANTING

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A. Tree planting and maintenance

1.2 MEASUREMENT AND PAYMENT

- A. Unit Prices:

1. Payment for tree planting is on unit price basis for each tree planted.
2. When shown on the Drawings or directed by the Project Manager to remove and relocate tree affected by trench zone, work shall be paid for under one (1) of the following bid items:
 - a. Bid item "Remove and Relocate Tree" includes moving tree with truck mounted tree spade and replanting same tree in new location. Payment is for each tree removed and relocated.
 - b. Bid item "Remove, Temporary Store and Replant Tree" includes moving tree with truck mounted tree spade and replanting tree at temporary location, (determined by the Contractor) maintaining tree until construction is complete and replanting same tree back to its original location. Payment is for each tree removed, stored and replanted.
3. Refer to Section 01270 - Measurement and Payment for unit price procedures.

- B. Stipulated Price (Lump Sum):

1. If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price.

1.3 REFERENCES

- A. ANSI – American National Standards Institute.
 - 1. ANSI Z 60.1 – Nursery Stock.
- B. AOAC - Association of Official Agriculture Chemists.
- C. CFDCM – City of Friendswood Design Criteria Manual
 - 1. Appendix D – Qualified Tree List.
- D. CFO – City of Friendswood Ordinance.
 - 1. Appendix C – Zoning.
- E. CETS – City of Friendswood Technical Specifications
 - 1. Section 01270 – Measurement and Payment.
 - 2. Section 01330 – Submittal Procedures.
 - 3. Section 01580 – Waste Material Disposal.
 - 4. Section 02905 – Topsoil.
 - 5. Section 02910 – Hydromulch Seeding.

1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.
- B. Submit certification from supplier that each type of tree conforms to these specification requirements.
- C. For unpackaged materials, submit analysis by recognized laboratory made in accordance with methods established by Association of Official Agriculture Chemists, when applicable.
- D. Submit name and experience of qualified Arborist to the Project Manager.
- E. Submit temporary tree storage location. Location must be outside public right-of-way and within five miles (5 Mi) of project site, unless otherwise approved by the Project Manager.

1.5 QUALITY ASSURANCE

- A. Landscaper shall be a firm specializing in landscape and planting the Work.
- B. Do not make substitutions of approved trees unless approved in writing by the Project Manager. When specified planting material is not obtainable, submit proof of non-availability together with proposal for use of equivalent material. Substitutions of larger size or better grade than specified shall be allowed, but with no increase in unit price.

1.6 DELIVERY, STORAGE and HANDLING

- A. Ship trees with Certificates of Inspection as required by governing authorities. Label each tree and shrub with securely attached waterproof tag bearing legible designation of botanical and common names. Do not remove container-grown stock from containers before time of planting.
- B. Deliver packaged materials in fully labeled original containers showing weight, analysis and name of manufacturer. Protect materials from deterioration during delivery and while stored at Site.
- C. Materials shall not be pruned prior to installation unless approved by the Project Manager in writing. Do not bend or bind-tie trees or shrubs in such manner as to damage bark, break branches or destroy natural shape. Use protective covering during delivery.

1.7 WARRANTY

- A. Warrant trees against defects including death, unsatisfactory growth or loss of shape due to improper pruning, maintenance or weather conditions, for one year (1 Yr) after completion of planting. Plumb leaning trees during warranty period.
- B. Remove and replace trees found to be dead during warranty period. Remove and replace trees which are in doubtful condition at end of warranty period or when approved by the Project Manager, extend warranty period for trees for full growing season.

PART II. PRODUCTS

2.1 TREES

- A. Provide container grown trees which are straight and symmetrical

and have persistently preferred main leader. Crown shall be in good overall proportion to entire height of tree with branching configuration as recommended by ANSI Z60.1 for type and species specified. Where clump is specified, furnish plant having a minimum of three (3) stems originating from common base at ground line. Measure trees by average caliper of trunk as follows:

1. For trunks up to four inches (4 in) or less in diameter, measure caliper six inches (6 in) above top of root ball.
2. For trunks more than four inches (4 in), measure caliper twelve inches (12 in) above top of root ball.
3. Caliper measurements shall be by diameter tape measure. Indicated calipers on the Drawings are minimum. Averaging of plant calipers shall not be allowed.

B. Trees shall conform to following requirements:

1. Healthy, vigorous stock, grown in recognized nursery.
2. Free of disease, insects, eggs, larvae, and free of defects such as knots, sun-scald, injuries, abrasions, disfigurement or borers and infestations.

2.2 SOIL PRODUCTS

- A. Topsoil: Conform to requirements of Section 02905 – Topsoil.
- B. Peat moss, bark and fertilizer: Use material recommended by nursery for establishment of healthy stock after replanting.

2.3 STAKES AND GUYS

- A. Provide a minimum eight foot (8-Ft) long steel T-stakes and one inch (1 in) wide plastic tree chains.
- B. Where applicable for anchoring trees, use wood deadmen of at least two inch by four inch (2 in x 4 in) stock, thirty-six inches (36 in) long and buried three feet (3-Ft). Provide white surveyor's plastic tape for flagging tree guys.

2.4 TREE WRAP, TWINE and SEAL

- A. Wrap: First (1st) quality, bituminous impregnated tape, corrugated or crepe paper, specifically manufactured for tree wrapping and having

qualities to resist insect infestation.

- B. Twine: Lightly tarred, medium-coarse sisal (lath) yarn. Do not use nails or staples to fasten wrapping.
- C. Seal: Commercially available asphaltic-base black emulsion specifically produced for use in sealing tree cuts and wounds

2.5 WATER

- A. Water shall be potable from municipal water supplies.

2.6 SOURCE QUALITY CONTROL

- A. Notify the Project Manager prior to installation of location where trees that have been selected for planting may be inspected. Plant material shall be inspected for compliance with following requirements:
 - 1. Genus, species, variety, size and quality.
 - 2. Size and condition of balls and root systems, insects, injuries and latent defects.

PART III. EXECUTION

3.1 PREPARATION

- A. Schedule the Work so that planting can proceed rapidly as portions of site become available. Plant trees after final grades are established and prior to paving of lawns, unless otherwise approved by the Project Manager in writing. When planting of trees occurs after seeding the Work, protect lawn areas and promptly repair damage to lawns resulting from tree planting operations.
- B. Layout individual trees at locations shown on the Drawings. In case of conflicts, notify the Project Manager before proceeding with the Work. Trees shall be staked and approved by the Project Manager prior to planting.

- C. Trees shall not be planted in the City Rights-of-Way

3.2 PREPARATION OF PLANTING SOIL

- A. Before mixing, clean topsoil of roots, plants, sod, stones, clay lumps and other extraneous materials harmful or toxic to plant growth.

- B Strip and utilize four inch (4 In) layer of top soil, placed on esplanades under Section 02910 – Hydromulch Seeding, for planting soil mixture
- C Mix recommended soil amendments with topsoil at following rates:
 - 1 Top soil: Fifty percent (50%)
 - 2 Peat moss: Twenty-five percent (25%)
 - 3 Well rotted Bark: Twenty-five percent (25%)
 - 4 Fertilizer: Rate recommended by nursery.
- D Delay mixing of fertilizer when planting shall not follow placing of planting soil within forty-eight hours (48 Hr), unless otherwise directed
- E Incorporate amendments into soil as part of soil preparation process prior to fine grading, fertilizing and planting. Broadcast or spread amendments evenly at specified rate over planting area. Thoroughly incorporate amendments into top two inches (2 In) or three inches (3 In) of soil until amendments are pulverized and have become homogeneous layer of topsoil ready for planting.

3.3 PLANTING

- A. Excavate pits, beds or trenches with vertical sides and with bottom of excavation raised a minimum of six inches (6 In) at center for proper drainage. Provide following minimum widths:
 - 1. Fifteen gallon (15 Gal) containers or larger, two feet (2 Ft) wider than diameter of root ball.
 - 2. One gallon (1 Gal) and five gallon (5 Gal) containers, six inches (6 In) wider than diameter of root ball.
- B. When conditions detrimental to plant growth are encountered, such as unsatisfactory soil, obstructions or adverse drainage conditions, notify the Project Manager before planting.
- C. Deliver trees after preparations for planting have been completed and plant immediately. When planting is delayed more than six hours (6 Hr) after delivery, set trees and shrubs in shade, protect from weather and mechanical damage and keep roots moist by

covering with mulch, burlap or other acceptable means of retaining moisture and water as needed

- D Set root ball on undisturbed soil in center of pit or trench and plumb plant. Place plants at level that, after settlement, natural relationship of plant crown with ground surface shall be established.
- E When set, place additional backfill around base and sides of ball and work each layer to settle backfill and eliminate voids and air pockets. When excavation is approximately two-thirds (2/3) full, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.
- F Dish top of backfill to allow for mulching. Mulch pits, trenches and planted areas. Provide not less than four inch (4 in) thickness of mulch, work into top of backfill and finish level with adjacent finish grades. Cover entire root ball.
- G Prune, thin out and shape trees in accordance with standard horticultural practice. Prune trees to retain required height and spread. Unless otherwise directed in writing, do not cut tree leaders and remove only injured and dead branches from flowering trees. Remove and replace excessively pruned or misformed stock resulting from improper pruning.
- H Inspect tree trunks for injury, improper pruning and insect infestation and take corrective measures.
- I Guy and stake trees immediately after planting.
- J Control dust caused by planting operations. Dampen surfaces as required. Comply with pollution control regulations of governing authorities.

3.4 FIELD QUALITY CONTROL

- A. The Project Manager may reject unsatisfactory or defective material at anytime during progress of the Work. Remove rejected trees immediately from site and replace with specified materials. Plant material not installed in accordance with these Technical Specifications shall be rejected.
- B. An inspection to determine final acceptance shall be conducted by the Project Manager at end of twelve month (12 Mo) maintenance period. Additional inspections shall be conducted for extended warranty periods provided for in paragraph 1.7 B.

3.5 MOVING EXISTING TREES

- A. Perform tree moving and replanting by a professional Arborist during dormant growth season
- B. Provide tree spade of adequate size as directed by professional Arborist.

3.6 MAINTENANCE

- A. Maintain trees during planting operations and for period of twelve months (12 Mos) after completion of planting
- B. Water trees to full depth a minimum of once each week or as required to maintain healthy vigorous growth.
- C. Prune, cultivate and weed as required for healthy growth. Restore planting saucers. Tighten and repair stake and guy supports and reset trees and shrubs to proper grades or vertical position as required. Restore or replace damaged wrappings. Spray as required to keep trees and shrubs free of insects and disease.

3.7 CLEANUP AND PROTECTION

- A. During planting work, keep pavements clean and work area in orderly condition.
- B. Protect planting work and materials from damage due to planting operations. Maintain protection during installation and maintenance period. Treat, repair or replace damaged planting work as directed by the Project Manager.
- C. Dispose of excess soil and waste in accordance with requirements of Section Waste 01580 – Waste Material Disposal. On-site burning of combustible cleared materials shall not be permitted.

END OF SECTION

SECTION 02925

LANDSCAPE IRRIGATION

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Pipe and fittings, valves, sprinkler heads and accessories.
- B Control system.

1.2 MEASUREMENT AND PAYMENT

A. Unit Prices:

1. Payment for landscape irrigation shall be made under this Section on lump sum basis.
2. Payment for capped irrigation sleeve, for connection to future system expansion, is on linear foot basis.
3. Refer to Section 01270 – Measurement and Payment

B. Stipulated Price (Lump Sum):

1. If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price

1.3 REFERENCES

A. ASTM – American Society for Testing and Materials.

1. ASTM D2564 – Standard Specification for Solvent Cements for Poly (Vinyl Chloride) (PVC) Plastic Piping Systems
2. ASTM D2241 – Standard Specification for Poly (Vinyl Chloride) (PVC) Pressure – Rated Pipe (SDR Series).

B. CFTS – City of Friendswood Technical Specifications.

1. Section 00300 – Unit Price Form
2. Section 01270 – Measurement and Payment

3. Section 01315 – Coordination and Meetings.
4. Section 01330 – Submittal Procedures
5. Section 01755 – Starting Systems.

1.4 SYSTEM DESCRIPTION

- A Electric solenoid controlled underground irrigation system.
- B Source Power: one hundred volt (120 V)

1.5 SUBMITTALS

- A Conform to requirements of Section 01330 – Submittal Procedures.

1.6 QUALIFICATIONS

- A Manufacturer: Company specializing in performing work of this Section with a minimum three years (3 Yr) documented experience

1.7 REGULATORY REQUIREMENTS

- A Conform to applicable code for piping and component requirements.

1.8 PRE-INSTALLATION CONFERENCE

- A Convene one week (1 Wk) prior to commencing work of this Section

1.9 COORDINATION

- A Coordinate work with site landscape grading and delivery of plant life.

1.10 EXTRA MATERIALS

- A Furnish extra components under provisions of Section 00300 – Unit Price Form
 - 1 Two (2) sprinkler heads of each type and size
 2. Two (2) valve box keys.
 - 3 Two (2) wrenches for each type head core and for removing and installing each type head.

PART II: PRODUCTS

2.1 PIPE MATERIALS

- A. Pipe shall be continuously and permanently imprinted with manufacturer's name, size, schedules, type and working pressure
- B. PVC Pipe ASTM D2241: Two hundred pound per square inch (200 psi) pressure rated upstream from controls, one hundred sixty pounds per square inch (160 psi) downstream; solvent welded sockets rubber gasket joints.
- C. Fittings: Type and style of connection to match pipe.
- D. Solvent Cement: ANSI/ASTM D2564 for PVC pipe and fittings.
- E. Sleeve material: Four inch (4 in) schedule 40 PVC.

2.2 OUTLETS

- A. Manufacturer's or approved equal:
 - 1. Rainbird Model 1804.
 - 2. Rainbird Model 1812.
 - 3. Hunter Model PGP.
- B. Rotary type sprinkler head: Pop-up type with screens, fully adjustable for flow and pressure, size as indicated, with letter or symbol designating degree of arc and arrow indicating center of spray pattern.
- C. Spray Type Sprinkler Head: Pop-up head with full circle, half circle, third circle, quarter circle and square pattern.

2.3 VALVES

- A. Manufacturer's or approved equal:
 - 1. Rainbird Model PEB Series
- B. Gate Valves: Bronze construction, non-rising stem and sized to line
- C. Backflow Preventers: FEBCO 765 Bronze body construction, reduced pressure zone or pressure vacuum breaker type

- D Valve Box and Cover: rectangular ten inches by four inches (10 In x 4 In) or nine inches (9 In) round

2.4 CONTROLLER

- A. Manufacturer's or approved equal:

1. Rainbird Model RC1260C.

- B Valves: Electric solenoid wiring including required fittings and accessories.

- C Wire conductors. Color coded.

PART III: EXECUTION

3.1 EXAMINATION

- A. Verify site conditions under provisions of Section 01315 – Coordination and Meetings.
- B. Verify location of existing utilities.
- C. Verify that required utilities are available, in proper location and ready for use.

3.2 PREPARATION

- A. Piping layout indicated is diagrammatic only. Route piping to avoid plants, ground cover and structures.
- B. Layout and stake locations of system components.
- C. Review layout requirements with other affected work. Coordinate locations of sleeves under paving to accommodate system.

3.3 TRENCHING

- A Trench and filling as required
- B Trench size
1. Minimum cover over installed supply piping Eighteen inches (18 In).
2. Minimum cover over installed branch piping: Twelve inches (12

In).

3. Minimum cover over installed outlet piping: Twelve inches (12 In)

C. Trench to accommodate grade changes

D. Maintain trenches free of debris, material or obstructions that may damage pipe.

E. Do not leave trenches open overnight.

3.4 INSTALLATION

A. Install pipe, valves, controls and outlets in accordance with manufacturer's instructions.

B. Connect to utilities.

C. Set outlets and box covers at finish grade elevations.

D. Install control wiring as required. Provide ten inch (10 in) expansion coil at each valve to which controls are connected and at one hundred foot (100 Ft) intervals. Bury wire beside pipe. Mark valves with neoprene valve markers containing locking device. Set valve markers in one hundred pounds per square inch (100 psi) PVC pipe risers exiting from top of valve to finish grade.

E. After piping is installed, but before outlets are installed and filling commences, open valves and flush system with full head of water.

F. Coordinate pipe installation with conduit installation.

3.5 FIELD QUALITY CONTROL

A. Field inspection and testing shall be performed.

B. Prior to filling, test system for leakage for whole system to maintain one hundred pounds per square inch (100 psi) pressure for one hour (1 Hr).

3.6 FILLING

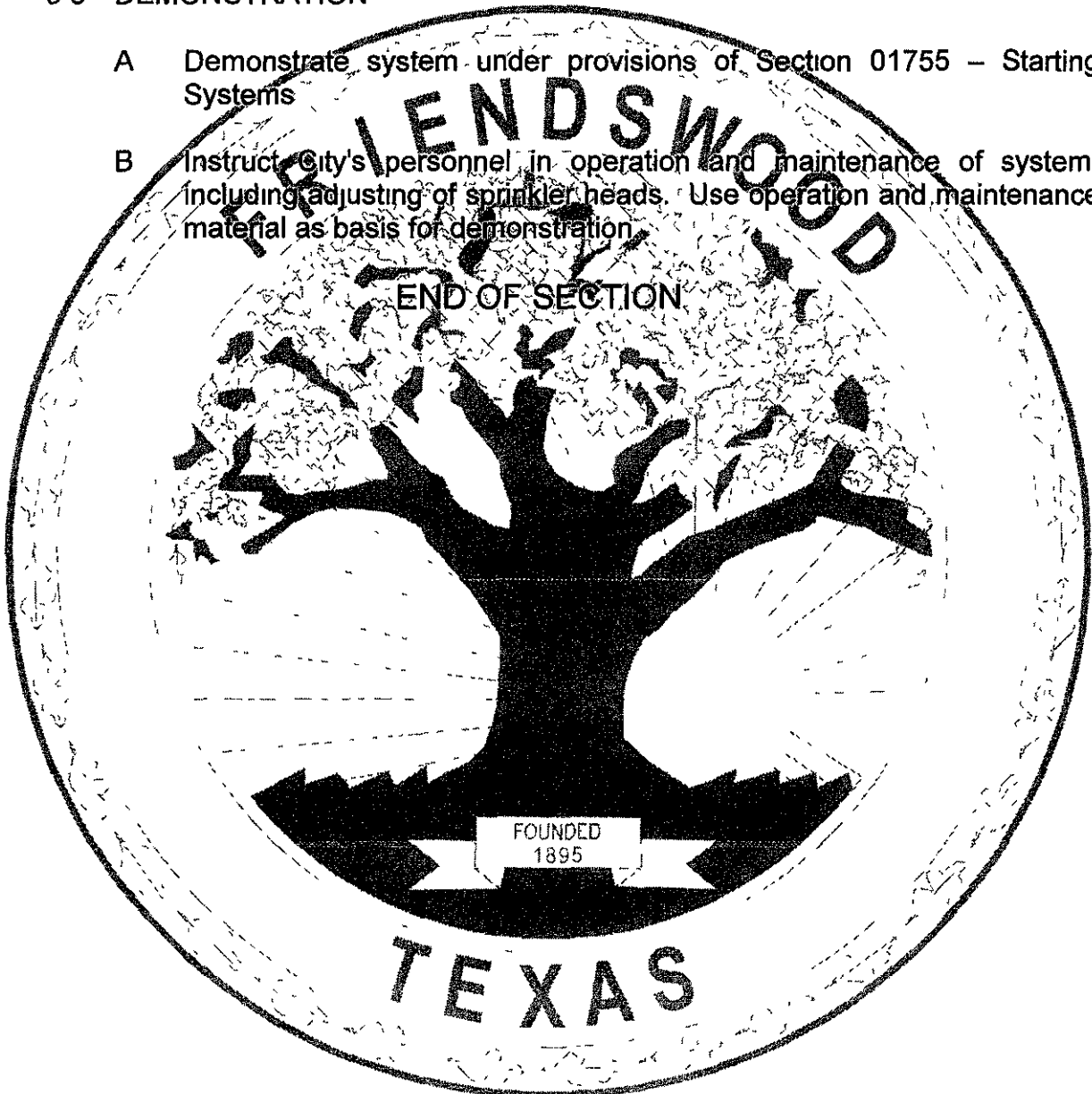
A. Cover with three inches (3 In) of sand over piping; fill trench and compact to subgrade elevation. Protect piping from displacement.

3 7 ADJUSTING

- A. Adjust control system to achieve time cycles required
- B Change and adjust head types for full water coverage as directed

3 8 DEMONSTRATION

- A Demonstrate system under provisions of Section 01755 – Starting Systems
- B Instruct City's personnel in operation and maintenance of system, including adjusting of sprinkler heads. Use operation and maintenance material as basis for demonstration



SECTION 03100

MORTAR

PART I GENERAL

1.1 GENERAL REQUIREMENTS

- A Mortar and grout for masonry.

1.2 MEASUREMENT AND PAYMENT

- A Unit Prices:

- 1 No separate payment shall be made for mortar for facilities under this Section. Include payment in Lump Sum for building or structure with price breakdown included in Schedule of Values.
- 2 No separate payment shall be made for mortar utilities under this Section. Include payment in unit price for the utility work.
- 3 Refer to Section 01270 - Measurement and Payment and Section 01295 - Schedule of Values.

- B Stipulated Price (Lump Sum). If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price.

3 REFERENCES

- A ASTM - American Society for Testing and Material.

- 1 ASTM C109 - Standard Test Method for Compressive Strength of Hydraulic Cement Mortars.
- 2 ASTM C143 - Standard Testing Method for Slump of Hydraulic Cement Concrete
- 3 ASTM C144 - Standard Specification for Aggregate for Masonry Mortar
- 4 ASTM C150 - Standard Specification for Portland Cement.
- 5 ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes

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- 6 ASTM C270 – Standard Specification for Mortar for Unit Masonry.
7. ASTM C404 – Standard Specification for Aggregates for Masonry Grout
- 8 ASTM C476 – Standard Specification for Grout for Masonry.
- 9 ASTM C780 – Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry.

B. CFTS – City of Friendswood Technical Specifications

- 1 Section 01270 – Measurement and Payment.
- 2 Section 01295 – Schedule of Values
- 3 Section 01330 – Submittal Procedures
- 4 Section 01450 – Contractor's Quality Control
- 5 Section 01470 – Testing Laboratory Services
- 6 Section 01475 – Quality Control Testing Procedures
7. Section 01610 – Approved Products List.

1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures.
- B. Include design mix, indicate Properly Method used, required environmental conditions, and admixture limitations
- C. Samples: Submit two (2) ribbons of each mortar color, illustrating color and color range.
- D. Submit test reports under provisions of Section 01450 – Contractor's Quality Control
- E. Submit test reports on mortar indicating conformance to ASTM C270
- F. Submit test reports on grout indicating conformance to ASTM C476

- G Submit manufacturer's certificate under provisions of Section 01450 – Contractor's Quality Control, that products meet or exceed specified requirements

1 5 DELIVERY, STORAGE, AND HANDLING

- A Deliver products to site and store and protect products under provisions of Section 01610 – Approved Products List
- B Maintain packaged materials clean, dry, and protected against dampness, freezing, and foreign matter

1 6 ENVIRONMENTAL REQUIREMENTS

- A Maintain materials and surrounding air temperatures to a minimum fifty degrees Fahrenheit (50° F) prior to, during, and forty-eight hours (48 Hrs) after completion of masonry work

1 7 MIX TESTS

- A Test mortar and grout in accordance with Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures
- B Testing of Mortar Mix: Test in accordance with ASTM C780 Test mortar mix for compressive strength, consistency, mortar aggregate ratio, water content, air content, and splitting tensile strength
- C Testing of Grout Mix: Test in accordance with ASTM C109 Test grout mix for compressive strength and slump

PART II: PRODUCTS

2 1 MATERIALS

- A Portland Cement. ASTM C150, Type I, white color
- B Masonry Cement Not permitted
- C Mortar Aggregate ASTM C144, standard masonry type Grading and color suitable for type of masonry, one (1) source for entire project [Not less than five percent (5%) shall pass No. 100 sieve]
- D Hydrated Lime ASTM C207, Type S
- E Grout Aggregate ASTM C404

F Water Clean and potable

2.2 MORTAR COLOR

A Mortar Color Mineral oxide pigment; color, to be selected by the Project Manager from manufacturer's samples

2.3 ADMIXTURES

A Antifreeze Antifreeze admixtures shall not be permitted

B Accelerator Accelerator may be used only with approval of the Project Manager

2.4 MORTAR

A Mortar for Load Bearing Walls and Partitions ASTM C270, Type S utilizing the Property Method to achieve one thousand eight hundred pounds per square inch (1800 psi) strength.

B Mortar for Non-load Bearing Walls and Partitions ASTM C270, Type S utilizing the Property Method to achieve one thousand eight hundred pounds per square inch (1800 psi) strength.

C Mortar for Masonry Below Grade or in Contact with Earth ASTM C270, Type M utilizing the Property Method to achieve two thousand five hundred pounds per square inch (2500 psi) strength

D Pointing Mortar: ASTM C270, Type N, using the Property Method to achieve seven hundred fifty pounds per square inch (750 psi) strength

2.5 MORTAR MIXING

A Thoroughly mix mortar ingredients in quantities needed for immediate use in accordance with ASTM C270 to achieve strengths noted in Paragraph 2.4.

B Add mortar color and admixtures in accordance with manufacturer's instructions Provide uniformity of mix and coloration

C Do not use anti-freeze compounds to lower freezing point of mortar

D If water is lost by evaporation, retemper only within two hours (2 Hrs) of mixing

E Use mortar within two hours (2 Hrs) after mixing at temperatures of

eighty degrees Fahrenheit (80° F), or two and one-half hours (2-1/2 Hrs) at temperatures under fifty degrees Fahrenheit (50° F)

2.6 GROUT

- A Bond Beams, Lintels, and Other Areas to be Grouted Solid: Three thousand pounds per square inch (3000 psi) strength at twenty-eight days (28 D), seven inch (7 In) to eight inch (8 In) slump per ASTM C143; mixed in accordance with ASTM C476, Fine Grout.

2.7 GROUT MIXING

- A Thoroughly mix mortar ingredients in quantities needed for immediate use in accordance with ASTM C476, Fine Grout.
- B Add admixtures in accordance with manufacturer's instructions. Provide uniformity of mix.
- C Do not use anti-freeze compounds to lower freezing point of grout.

PART III EXECUTION

3.1 EXAMINATION

- A Request inspection of spaces to be grouted.

3.2 PREPARATION

- A Apply bonding agent to existing concrete surfaces.
- B Plug clean out holes with masonry units to prevent leakage of grout materials. Brace masonry for wet grout pressure.

3.3 INSTALLATION

- A Install mortar and grout in accordance with manufacturer's instructions.
- B Work grout into masonry cores and cavities to eliminate voids.
- C Do not displace reinforcement while placing grout.
- D Remove grout spaces of excess mortar.

END OF SECTION

SECTION 03105

GROUT

PART I. GENERAL

1.1 GENERAL REQUIREMENTS

A Mix design requirements, testing, furnishing and production of grout for:

- 1 Pressure grouting of jacked-pipe.
- 2 Annular grouting of cased or uncased sewer pipe.
- 3 Grouting voids in ground resulting from caving, loss of ground or settlement.

B Compaction grouting is not part of this specification.

1.2 MEASUREMENT AND PAYMENT

A Unit Prices:

1. No separate payment shall be made for the Work performed under this Section. Include cost of such the Work in contract unit prices for the Work of which it is component part.
2. Refer to Section 01270 - Measurement and Payment for Unit Price procedures.

B Stipulated Price (Lump Sum)

- 1 If Contract is Stipulated Price Contract, payment for the Work in this Section is included in Total Stipulated Price.

1.3 DEFINITIONS

- A Pressure Grouting: Filling void behind liner or pipe with grout under pressure sufficient to ensure void is properly filled but without overstressing temporary or permanent ground support or causing ground heave to occur
- B. Annular Grouting: Filling annular space between carrier pipe and casing or ground, by pumping

- C Ground Stabilization Grouting: Filling of voids, fissures or under-slab settlement due to caving or loss of ground by injecting grout under gravity or pressure to fill void

1.4 REFERENCE STANDARDS

A. ASTM – American Society for Testing and Materials.

1. ASTM C138 Standard Test Method for Unit Weight, Yield and Air Content (Gravimetric) of Concrete
2. ASTM C144 Standard Specification for Aggregate for Masonry Mortar
3. ASTM C150 Standard Specification for Portland Cement.
4. ASTM C494 Standard Specification for Chemical Admixture for Concrete
5. ASTM C869 Standard Specification for Foaming Agents Used in Making Preformed Foam for Cellular Concrete
6. ASTM C937 Standard Specification for Grout Fluidifier for Pre-placed Aggregate Concrete.
7. ASTM C942 Standard Test Method for Compressive Strength of Grout for Pre-placed Aggregate Concrete into Laboratory
8. ASTM C1017 Standard Specification for Chemical Admixture for Use in Producing Flowing Concrete.

B. CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment.
2. Section 01330 – Submittal Procedures.
3. Section 01470 – Testing Laboratory Services
4. Section 01475 – Quality Control Testing Procedures
5. Section 03300 – Structural Concrete

1.5 SUBMITTALS

- A. Conform to requirements of Section 01330 - Submittal Procedures.
- B. Submit description of materials, grout mix, equipment and operational procedures to accomplish each grouting operation. Description may include sketches as appropriate, indicating type and location of mixing equipment, pumps, injection points, venting method, flow lines, pressure measurement, volume measurement, grouting sequence, schedule and stage volumes. Tests and certifications shall have been performed within last twelve months (12 Mos) prior to date of submittal.
- C. Submit grout mix design report including:
 - 1. Grout type and designation.
 - 2. Grout mix constituents and proportions, including materials by weight and volume.
 - 3. Grout densities and viscosities, including wet density at point of placement.
 - 4. Initial set time of grout.
 - 5. Bleeding, shrinkage/expansion.
 - 6. Compressive strength.
- D. For cellular grout, also submit the following:
 - 1. Foam concentrate supplier's certification of dilution ratio for foam concentrate.
 - 2. A description of proposed cellular grout production procedures.
- E. Maintain and submit logs of grouting operations indicating pressure, density and volume for each grout placement.

PART II PRODUCTS

2.1 MATERIALS

- A. Grouting materials. Conform to Section 03300 – Structural Concrete, except as modified in the following paragraphs.

B. Grout Type Applications.

- 1 Grout for pressure grouting, backfill grouting and annular grouting: Sand-cement mortar mix.
- 2 Grout for annular grouting of sanitary sewer: Low density (cellular) grout, unless otherwise approved by the Project Manager.
- 3 Grout for filling space in manholes: Sand-cement mortar mix
- 4 Ground stabilization: Sand-cement mortar mix.

C. Do not include toxic or poisonous substances in grout mix or otherwise inject such substances underground.

2.2 GROUT

A Develop one (1) or more mixes based on following criteria as applicable:

1. Size of annular void between sewer pipe and casing or size of void between casing and surrounding soil.
2. Absence or presence of groundwater
3. Adequate retardation
4. Non-shrink characteristics
5. Pumping distances

B Prepare mixes that satisfy required application Provide materials conforming to the following standards:

1. Cement: ASTM C150
2. Water: Potable.
3. Foam: ASTM C869
4. Slurry: ASTM C138
5. Cellular Grout: ASTM C138.
6. Sand for sand-cement mortar mix: ASTM C144.

C. Provide grout meeting the following minimum requirements:

1. Minimum twenty-eight day (28 D) unconfined compressive strength: one thousand five hundred pounds per square inch (1500 psi) for water lines, one thousand pounds per square inch (1000 psi) for other carrier pipes for mortar grout and three hundred pounds per square inch (300 psi) for cellular grout.

2. Determine strength by ASTM C942

3. Maximum allowable density: Less than one hundred thirty pounds per cubic foot (130 pcf).

D. Fluidifier: Provide fluidifier meeting ASTM C937 that holds solid constituents of grout in colloidal suspension and is compatible with cement and water used in grouting operations.

E. Admixtures.

1. Use admixtures meeting ASTM C494 and ASTM C1017 as required to improve pumpability, control time of set, hold sand in suspension and reduce segregation and bleeding
2. For cellular grout, do not use foam or admixtures that promote steel corrosion.
3. — Ensure that admixtures used in mix are compatible. Provide written confirmation from admixture manufacturers of their compatibility.

PART III: EXECUTION

3.1 PREPARATION

- A. Notify the Project Manager at least twenty-four hours (24 Hrs) in advance of grouting operations.
- B. Select and operate grouting equipment to avoid damage to new or existing underground utilities and structures.
- C. In selection of grouting placement consider pipe flotation, length of pipe, length of tunnel, depth from surface and type of sewer pipe, type of pipe blocking and bulkheading, grout volume and length of pipe to be grouted between bulkheads.

- D. Operate dewatering systems until grouting operations are complete and grout has reached initial set

3.2 EQUIPMENT

- A. Batch and mix grout in equipment of sufficient size and capacity to provide necessary quality and quantity of grout for each placement stage.
- B. Use equipment for grouting of type and size generally used for the Work, capable of mixing grout to homogeneous consistency and providing means of accurately measuring grout component quantities and accurately measuring pumping pressures. Use pressure grout equipment which delivers grout to injection point at steady pressure

3.3 ANNULAR GROUTING FOR SEWER/WATER LINE IN CASED OR UNCASED AUGERS

- A. Fill annular space between sewer pipe and casing or ground, with grout.

- B. Placement:

1. Placement Limits. Predetermine limits of each grout placement stage by size and capacity of batching equipment and initial set time of proposed grout. Under no circumstances shall placement continue at grout port longer than that period of time for mix to take initial set. Locate grout hole spacing and locations according to number of stages necessary to grout tunnel liners. Stage or lift cannot be installed on another lift until proper set has been attained. Have placement procedures approved by admixture or additive manufacturer.
2. Limit pressure on annular space to prevent damage or distortion to pipe. Define limiting and estimated required pressure range. Provide an open ended, high point tap or equivalent vent and monitor it at bulkhead opposite to point of grouting.
3. Pump grout until material discharging is similar in consistency to that at point of injection

- C. Remove temporary bulkheads installed for grouting.

- D. Batch and mix cellular grout mechanically to ensure consistency of mix.

Wet solids thoroughly before introduction of foaming agent. Operate batching system to maintain slurry weight within three percent (3%) of design density. Introduce foam into slurry in accordance with manufacturer's recommendations.

3.4 PRESSURE GROUTING FOR JACKED PIPE

- A. For jacked pipe sixty inches (60 in) in diameter or greater, pressure grout annulus after installation, displacing bentonite lubrication. Jacked pipes less than sixty inch (60 in) diameter may be left ungrouted unless excavated diameter exceeds external pipe diameter by more than one inch (1 in).
- B. Inject grout through grout holes in sewer pipe. Drilling holes from surface or through carrier pipe walls is not allowed. Perform grouting by injecting it at pipe invert with bentonite displacement occurring through high point tap or vent.
- C. Control ground water as necessary to permit completion of grouting without separation of grout materials.
- D. Limit pressures to prevent damage or distortion to pipe or to keep flexible pipe within acceptable tolerances.
- E. Pump grout until material discharging is similar in consistency to that at point of injection.

3.5 GROUND STABILIZATION GROUTING

- A. Completely fill voids outside limits of excavation caused by caving or collapse of ground. Fill with gravity or pressure injected sand-cement grout as necessary to fill voids.
- B. Take care in grouting operations to prevent damage to adjacent utilities or public or private property. Grout at pressure that shall not distort or imperil portion of the work or existing installations or structures.
- C. Verify that void has been filled by volumetric comparisons and visual inspection. In case of settlement under existing slabs, take cores as directed by the Project Manager, at no additional cost to the City, to demonstrate that void has been filled.

3.6 FIELD QUALITY CONTROL

- A. Annular Grouting for Sewer Line in Cased or Uncased Augers.

1. Make one (1) set of four (4) compressive test specimens for every two hundred feet (200 Ft) of sewer pipe installed in primary lined tunnel.
2. For cased or uncased augers, make one (1) set of four (4) compressive test specimens for each grouting operation or for each one hundred feet (100 Ft) of pipe installed, whichever is more frequent.

3. For cellular grout, check slurry density both at point of batching and placement at least twice each hour in accordance with ASTM C138. Record density, time and temperature. Density must be within three percent (3%) of design density at point of batching and five percent (5%) of design density at point of placement.

B. Pressure Grouting for Jacked Pipe. Make one (1) set of four (4) compressive test specimens for every four hundred feet (400 Ft) of jacked pipe pressure grouting.

C. Ground Stabilization Grouting. Make one (1) set of four (4) compressive test specimens for every location where ground stabilization grouting is performed.

D. All testing to be done in conformance with Section 01470 – Testing Laboratory Services and Section 01475 – Quality Control Testing Procedures

END OF SECTION

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TEXAS

SECTION 03200

REINFORCING STEEL

PART I. GENERAL

1.1 GENERAL REQUIREMENTS

- A. Furnishing, fabrication and installation of all reinforcing bar, and for placement in concrete.
- B. Requirements for placing, tying and supporting reinforcing steel in concrete.

1.2 MEASUREMENT AND PAYMENT

A UNIT PRICES

- 1. No separate payment shall be made for reinforcing steel used as part of a new cast-in-place structure or concrete paving. Include cost for labor, materials and equipment in the cost of the bid item for the structure or paving.
- 2. Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum).

- 1. If Contract is Stipulated Price Contract, payment for work in this Section is included in Total Stipulated Price.

1.3 REFERENCES

A. ACI – American Concrete Institute.

- 1. ACI 318-11R – Building Code Requirements for Reinforced Concrete and Commentary
- 2. ACI SP-66 – Detailing Manual

B AWS – American Welding Society.

- 1. AWS – D1.4 – Structural Welding Code – Reinforcing Steel

C. ASTM – American Society for Testing and Materials

- 1 ASTM A82 – Standard Specification for Steel Wire, Plain, for Concrete Reinforcement
- 2 ASTM A185 – Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete Reinforcement
- 3 ASTM A497 – Standard Specification for Steel Welded Wire Reinforcement, Deformed, for Concrete Reinforcement
- 4 ASTM A615 – Standard Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement
- 5 ASTM A706 – Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement.
- 6 ASTM A767 – Standard Specification for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement
- 7 ASTM A775 – Standard Specification for Epoxy-Coated Reinforcing Steel Bars.

D. CFTS – City of Friendswood Technical Specifications.

- 1 Section 01270 – Measurement and Payment.
2. Section 01330 – Submittal Procedures

E. CRSI – Concrete Reinforcing Steel Institute.

1. Placing Reinforcing Bars.
2. Manual of Standard Practice.

F. ICBO – International Conference of Building Officials

- 1 ICBO Research Report.

G. WRI – Wire Reinforcement Institute

- 1 Manual of Standard Practice, Welded Wire Reinforcement.

1.4 SUBMITTALS

- A. Conform to requirements of Section 01330 – Submittal Procedures
- B. Action Submittals.
 - 1. Shop Drawings prepared in accordance with CRSI Manual of Standard Practice and ACI SP-66 Detailing Manual
 - a. Bending lists.
 - b. Placing drawings.
- C. Informational Submittals.
 - 1. Lab test reports for reinforcing steel showing stress-strain curves and ultimate strengths.
 - 2. Mechanical Threaded Connections.
 - a. Current International Conference of Building Officials (ICBO) Research Report or equivalent code agency report listing findings to include acceptance, special inspection requirements, and restrictions.
 - b. Manufacturer's instructions.
 - c. Verification that device threads have been tested and meet requirements for thread quality, in accordance with manufacturers published methods.
- D. Welding Qualification. Prior to welding, submit welder qualifications and nondestructive testing procedures.
- E. Test results of field testing.
- F. Shop drawings shall show all bars, sizes, dimensions, spacings, clearances, and placement patterns.

1.5 QUALITY ASSURANCE

- A. Provide manufacturer's affidavits that steel was manufactured in compliance with standards referenced in this Section.
- B. Provide manufacturer's affidavits that steel is American made and not imported.

- C Welder Qualifications. Certified in accordance with AWS D1 4
- D Independent Testing Laboratory, contracted by the City, shall inspect all items that are welded and shall report results to the Project Manager

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Unload, store, and handle bars in accordance with CRSI publication "Placing Reinforcing Bars."
- B. Reinforcing steel shall not remain on the ground for any length of time.

PART II: PRODUCTS

2.1 MATERIALS

A. Deformed Billet Steel Reinforcing Bars

- 1 Includes stirrups, ties, and spirals.
- 2 ASTM A615, Grade 60, where welding is not required
- 3 ASTM A706/A706M, Grade 60, for reinforcing to be welded
- 4 ASTM A767/767M, Grade 60, for galvanized bars

B. Mechanical Splices and Connections

- 1. Metal Sleeve Splice: Furnish with cast filler metal, capable of developing, in tension or compression, one hundred twenty-five percent (125%) of minimum tensile strength of bar. Manufacturer and Product:

a Erico Products, Inc., Cleveland, OH, Cadweld T-Series.

- 2 Mechanical Threaded Connections: Furnish metal coupling sleeve with internal threads engaging threaded ends of bars developing in tension or compression one hundred twenty-five percent (125%) of yield strength of bar Manufacturers and Products

a Erico Products, Inc., Cleveland, OH, Lenton Reinforcing Steel Couplers

b Richmond Screw Anchor Co, Inc, Fort Worth, TX;

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Richmond DB-SAE Dowel Bar Splicers.

C Welded Wire Reinforcement:

- 1 ASTM A185 or A497 and ACT 31 8/318R, using ASTM A82 wire of seventy-five kilo-pounds per square inch (75 ksi) minimum tensile strength.
2. Furnish flat sheets only; rolled sheets shall not be permitted

2.2 ACCESSORIES

A Tie Wire.

- 1 Black, soft-annealed sixteen (16) gauge wire.
- 2 Nylon, epoxy-, or plastic-coated wire.

B Bar Supports and Spacers.

- 1 Precast concrete bar supports, cementitious fiber-reinforced bar supports, or all-plastic bar supports and side form spacers meeting requirements of CRSI Manual of Standard Practice. Other types of supports or spacers shall not be permitted.
- 2 In concrete exposed to view after form removal: Small rectangular concrete blocks made up of same color and strength as concrete being placed around them, or all-plastic bar supports and side form spacers.
- 3 Precast concrete supports of same strength as concrete for reinforcing in concrete placed on grade.
- 4 Plastic Bar Supports: As manufactured by Aztec Concrete Accessories, Bloomington, CA.

2.3 FABRICATION

- A Follow CRSI Manual of Standard Practice
- B Bend bars cold

PART III: EXECUTION

3.1 PREPARATION

- A Notify the Project Manager when reinforcing is ready for inspection and allow sufficient time for inspection prior to placing concrete
- B Clean reinforcing bars of loose mill scale, oil, earth, and other contaminants.
- C Coat wire projecting from precast concrete bar supports with dielectric material, epoxy, or plastic.

3.2 REINFORCING BAR INSTALLATION

- A Bundle or space bars, instead of field bending, where construction access through reinforcing is necessary.
- B Spacing and Positioning: Conform to ACI 318/318R. There shall be a minimum of one inch (1 in) spacing between end of reinforcing bars and the face of the form.
- C Location Tolerances: In accordance with CRSI publication, "Placing Reinforcing Bars"
- D Splicing
 - 1. Follow ACI 318/318R.
 - 2. Use lap splices of not less than eighteen inches (18 in), unless otherwise shown on the Drawings or unless other methods are permitted in writing by the Project Manager.
 - 3. Stagger splices in adjacent bars where indicated.
- E Mechanical Splices and Connections
 - 1. Use only in areas specifically approved in writing by the Project Manager
 - 2. Install threaded rods as recommended by manufacturer with threads totally engaged into coupling sleeve and in accordance with ICBO Research Report
 - 3. For metal sleeve splice, follow manufacturer's installation recommendations

4. Maintain a minimum edge distance and concrete cover

F Tying Reinforcing Bars

1. Tie every other intersection on mats
2. All edges shall be one hundred percent (100%) tied.
3. No two (2) consecutive reinforcing bars in either direction shall be untied.
4. Bend ties wire away from concrete surface to provide clearance of one inch (1 in) from surface of concrete to tie wire.

G Reinforcing Steel Mat Supports

1. Reinforcing Steel Mat supports shall be either plastic, metal with plastic tips, or concrete brick only.
2. Supports shall be of the size and height needed to maintain position of reinforcing steel in the concrete.
3. Supports shall be installed underneath the crossing bar closest to the subgrade (bottom).
4. Supports shall be placed in a checkerboard fashion similar to that for tying of the reinforcing steel

G Reinforcement Around Openings: On each side and above and below pipe or opening, place an equivalent length and area of steel bars to replace steel bars cut for opening. Extend steel reinforcing a standard lap length beyond opening at each end.

- H. Straightening and Re-bending: Field re-bending of reinforcing steel bars is not permitted.
- I. Unless permitted by the Project Manager, do not cut reinforcing bars in the field

3.3 WELDED WIRE REINFORCEMENT INSTALLATION

- A Use only where specifically shown
- B Extend reinforcement to within two inches (2 in) of edges of slab, and lap splices at least eighteen inches (18 in)

- C. Tie laps and splices securely at ends with tie wire, and at least every twenty-four inches (24 In)
- D. Place welded wire reinforcement on concrete blocks and rigidly support equal to that provided for reinforcing bars. Do not use broken concrete, brick, or stone
- E. Follow ACI 318/1318R and current Manual of Standard Practice, Welded Wire Reinforcement
- F. Do not use rolled fabric or flat mats that have been rolled. Install flat sheets only

3.4. TESTS AND INSPECTION

- A. An independent testing agency shall be retained by the City to visually inspect and test reinforcing steel welds in accordance with AWS D1.4
- B. An independent testing agency shall be retained by the City to inspect each mechanical splice and verify each component is installed in accordance with manufacturer's instructions and ICBO Research Report
- C. Special inspection shall be provided by the City as indicated on the Drawings.

END OF SECTION

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TEXAS

SECTION 03300

STRUCTURAL CONCRETE

PART I: GENERAL

1.1 GENERAL REQUIREMENTS

- A Requirements for materials proportioning, batching, mixing, delivery, and testing of Portland Cement Concrete to be used for concrete paving, concrete structures, and all other types of concrete construction.
- B Requirements for furnishing, erecting and removing form work, constructing expansion, construction, and control joints.
- C Requirements for placing, curing, protecting and finishing of concrete.

1.2 MEASUREMENT AND PAYMENT

A Unit Prices

- 1 No payment will be made for concrete for utility construction under this Section. Include cost in applicable utility structure.
- 2 Obtain services of and pay for certified testing laboratory to prepare design mixes
- 3 Refer to Section 01270 – Measurement and Payment for unit price procedures.

B Stipulated Price (Lump Sum)

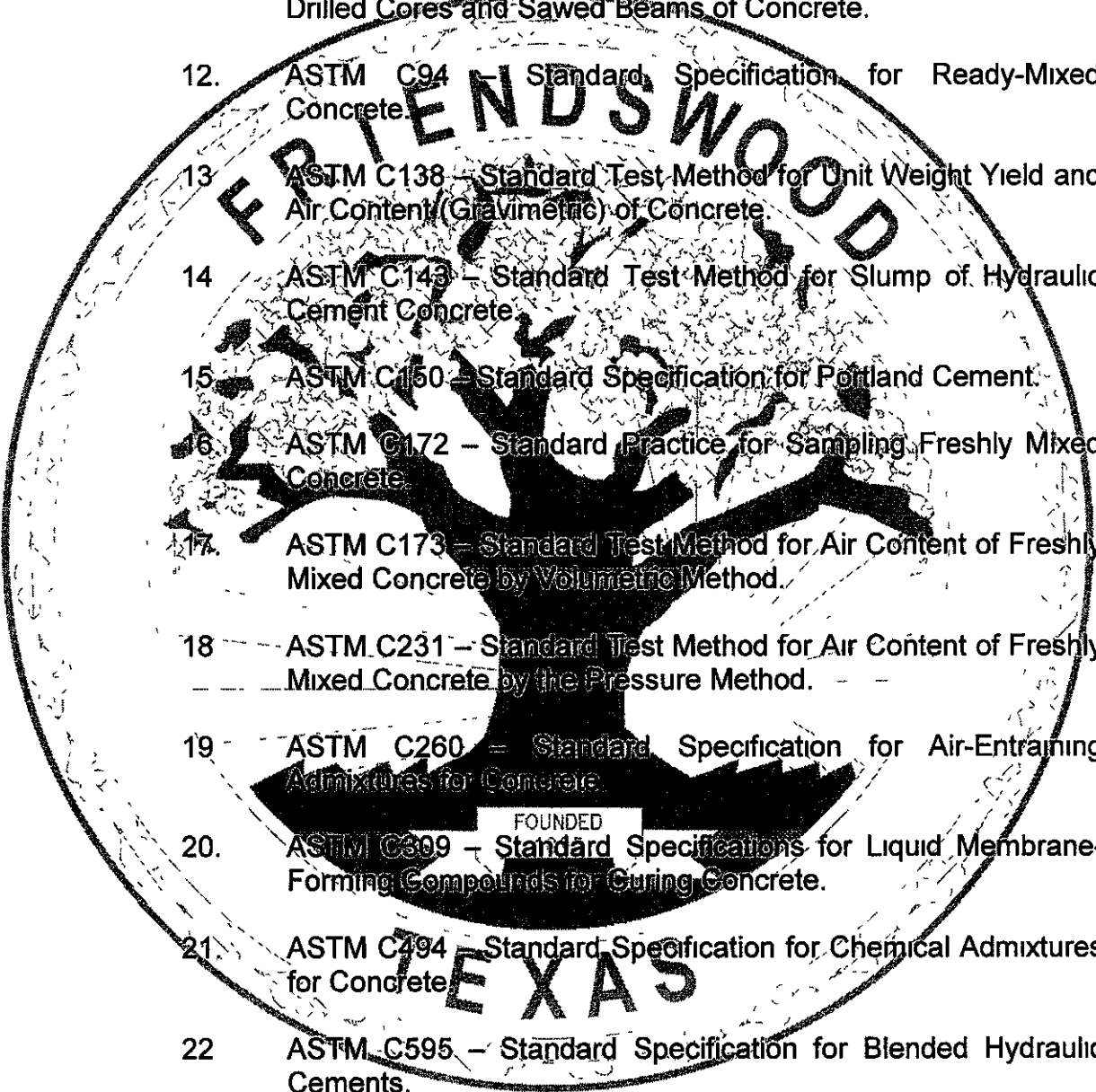
- 1 If Contract is Stipulated Price Contract, payment for work in this Section shall be included in Total Stipulated Price.

1.3 REFERENCES

A. ACI – American Concrete Institute.

- 1 ACI 117 – Standard Tolerances for Concrete Construction and Materials
- 2. ACI 211.1 – Standard Practice for Selecting Proportions for Normal, Heavyweight and Mass Concrete.

3. ACI 302 1R – Guide for Concrete Floor and Slab Construction
 4. ACI 304R – Guide for Measuring, Mixing, Transporting, and Placing Concrete.
 5. ACI 308 – Standard Practice for Curing Concrete.
 6. ACI 309R – Guide for Consolidation of Concrete.
 7. ACI 311 – Guide for Concrete Plant Inspection and Field Testing of Ready-Mix Concrete.
 8. ACI 315 – Details and Detailing of Concrete Reinforcement
 9. ACI 318 – Building Code Requirements for Reinforced Concrete and Commentary.
 10. ACI 544 – Guide for Specifying, Mixing, Placing, and Finishing Steel Fiber Reinforced Concrete.
- B. ASTM – American Standards and Testing of Materials
1. ASTM A82 – Standard Specification for Steel Wire, Plain, for Concrete Reinforcement.
 2. ASTM A185 – Standard Specification for Steel Welded Wire Fabric, Plain, for Concrete Reinforcement.
 3. ASTM A615 – Standard Specification for Deformed and Plain Billet Steel Bars for Concrete Reinforcement.
 4. ASTM A767 – Standard Specifications for Zinc-Coated (Galvanized) Steel Bars for Concrete Reinforcement.
 5. ASTM A775 – Standard Specification for Epoxy-Coated Reinforcing Steel Bars.
 6. ASTM A820 – Standard Specification for Steel Fibers for Fiber-Reinforced Concrete.
 7. ASTM A884 – Specification for Epoxy-Coated Steel Wire and Welded Wire Fabric for Reinforcement
 8. ASTM C31 – Standard Practice for Making and Curing Concrete Test Specimens in the Field.

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9. ASTM C33 – Standard Specification for Concrete Aggregates
 10. ASTM C39 – Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
 11. ASTM C42 – Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.
 12. ASTM C94 – Standard Specification for Ready-Mixed Concrete.
 13. ASTM C138 – Standard Test Method for Unit Weight Yield and Air Content (Gravimetric) of Concrete.
 14. ASTM C143 – Standard Test Method for Slump of Hydraulic Cement Concrete.
 15. ASTM C150 – Standard Specification for Portland Cement.
 16. ASTM C172 – Standard Practice for Sampling Freshly Mixed Concrete.
 17. ASTM C173 – Standard Test Method for Air Content of Freshly Mixed Concrete by Volumetric Method.
 18. ASTM C231 – Standard Test Method for Air Content of Freshly Mixed Concrete by the Pressure Method.
 19. ASTM C260 – Standard Specification for Air-Entraining Admixtures for Concrete.
 20. ASTM C309 – Standard Specifications for Liquid Membrane-Forming Compounds for Curing Concrete.
 21. ASTM C494 – Standard Specification for Chemical Admixtures for Concrete.
 22. ASTM C595 – Standard Specification for Blended Hydraulic Cements.
 23. ASTM C685 – Standard Specification for Concrete Made by Volumetric Batching and Continuous Mixing
 24. ASTM C618 – Standard Specification for Coal Fly Ash or Calcined Natural Pozzolan for Use in Concrete

25 ASTM C1064 – Standard Test Method for Temperature of Freshly Mixed Portland Cement Concrete.

26 ASTM C1077 – Standard Practice for Laboratory Testing of Concrete and Concrete Aggregate for Use in Construction and Criteria for Laboratory Evaluation

C CFTS – City of Friendswood Technical Specifications

1. Section 01270 – Measurement and Payment.

2. Section 01330 – Submittal Procedures.

3. Section 01470 – Testing Laboratory Services.

4. Section 01475 – Quality Control Testing Procedures.

5. Section 02820 – Concrete Sidewalks.

6. Section 02825 – Colored Concrete for Wheelchair Ramps.

D. CRSI – Concrete Reinforcing Steel Institute.

1. CRSI MSP-1 – Manual of Standard Practice

2. CRSI – Placing Reinforcing Bars.

E Federal Specifications

1. Federal Specification SS-S-210A – Sealing Compound, Preformed Plastic for Expansion Joints and Pipe Joints.

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F NRMCA – National Ready Mix Concrete Association

1. Concrete Plant Standards.

1.4 SUBMITTALS

A Conform to requirements of Section 01330 – Submittal Procedures

B Submit proposed mix design and test data prepared by a certified testing laboratory for each type and strength of concrete in Work

C Submit laboratory reports prepared by independent testing laboratory stating that all material used in concrete mix design comply with

requirements in this Section

- D Submit manufacturer's mill certificates for reinforcing steel Provide specimens for testing when required by Project Manager
- E Submit certification from concrete supplier that all materials and equipment used to produce and deliver concrete comply with this Technical Specification
- F When required on The Drawings, submit shop drawings showing reinforcement type, quantity, size, length, location, spacing, bending, splicing, support, fabrication details, and other pertinent information

1.5 CONCRETE CLASSIFICATION AND USE

- A Classifications of concrete are for specific use and material only Compressive Strengths shall vary depending on Designs, Details, and Individual Technical Specifications, but at a minimum shall meet the minimum requirements as Specified in TABLE 4.1 – CONCRETE CLASSIFICATION MINIMUM REQUIREMENTS
- B Class of concrete shall be identified as follows.
 - 1. Class A Concrete – Paving, drilled shafts, non-structural culverts, inlets, manholes, curb, curb and gutter, sidewalk, driveway, wheelchair ramp, pilot channel and slope paving
 - 2. Class B Concrete – Paving, structural culverts, wingwall, headwall and bridge structures
 - 3. Class C Concrete – Small signs, anchors, and pipe blocking
 - 4. Class D Concrete – Seal slab
 - 5. Class E Concrete – Prestressed concrete beams, boxes and traffic barriers
 - 6. Class F – “High Early Strength” concrete for traffic surfaces only and only with approval of Director of Community Development

1.6 HANDLING AND STORAGE

- A Cement Store cement off of ground in well-ventilated, weatherproof building to prevent deterioration or exposure to moisture Different brands of cement or same brand from different sources shall not be

used unless approved by the Director of Community Development or the Project Manager

- B Aggregates All aggregates shall be transported and stockpiled separately according to their sources and gradations. Aggregates shall be handled in accordance with ACI requirements to prevent segregation and loss of fines or contamination with foreign materials

- 1 If aggregates show segregation or the different grades become mixed, aggregates shall be re-screened before placing in the proportioning bins
- 2 Aggregates from different sources or different gradations shall be segregated to prevent intermixing. Mixing of aggregates in stockpiles shall not be permitted.
- 3 No aggregate shall be transferred to proportioning bins when the moisture content of the aggregate is such that it will affect the accuracy of proportioning. Such aggregates shall be removed and stockpiled until a dry surface condition is obtained.

PART II PRODUCTS

2.1 CONCRETE MATERIALS

- A Portland cement concrete shall be composed of Portland cement, fine aggregate, coarse aggregate, water and admixtures as approved by the Project Manager and shall be proportioned and mixed as specified in this Section.
- B Cementitious Material
- 1 Portland Cement: ASTM C150, Type I/II, unless use of Type III is authorized by Project Manager, or ASTM C595, Type IP. For concrete in contact with sewage use Type II cement
 - 2 When aggregates are potentially reactive with alkalis in cement, use cement not exceeding four pounds per cubic yard (4 Lbs/Cy) alkali content in form of $\text{Na}_2\text{O} + 0.658\text{K}_2\text{O}$
- C Water Clean, free from harmful amounts of oils, acids, alkalis, organic or other deleterious substances, and meeting requirements of ASTM C94. Water from municipal supplies approved by State agencies will not require testing, but water from other sources shall be tested before use in concrete

- 1 Tests shall be made in accordance with AASHTO T26 One gallon (1 Gal) shall be taken to qualified testing laboratory for testing
- 2 Water used in white Portland cement concrete shall be free from iron and other impurities which may cause staining or discoloration

D Aggregate

- 1 Coarse Aggregate ASTM C33 Unless otherwise indicated, use following ASTM standard sizes No 357 or No 467, No 57 or No 67, No. 7. Maximum size Not larger than one-fifth (1/5) of narrowest dimension between sides of forms, nor larger than three-quarters (3/4) of minimum clear spacing between reinforcing bars Coarse aggregates shall meet the requirements as specified in TABLE 4.2 – COARSE AGGREGATE GRADATION in this Section
 - a Coarse aggregate material shall be made of either durable crushed or uncrushed gravel, crushed stone having uniform quality throughout. All coarse aggregate material shall have a wear of not more than forty percent (40%).
 - b. Deleterious substance shall have a maximum permissible percentage by weight as specified in TABLE 4.3 – DELETERIOUS SUBSTANCES in this Section. Aggregate to be free from excess of salt, alkali, vegetable matter or other objectionable material either free or as adherent coating
- 2 Fine Aggregate ASTM C33 Fine aggregates shall meet the requirements as specified in TABLE 4.4 – FINE AGGREGATE GRADATION in this Section. Fine aggregates shall be sand or combination of sand and not more than fifty percent (50%) stone screenings
 - a Sand shall be clean, hard, durable and uncoated grains
 - b Stone screenings shall be clean, hard, durable and uncoated fragments resulting from crushing of stone
3. Determine potential reactivity of fine and coarse aggregate in

accordance with Appendix to ASTM C33

- 4 Mineral filler – The addition of stone dust and/or sand as filler in Portland Cement Concrete paving may be used when approved by the Project Manager. Stone dust and sand shall be of acceptable quality and cleanliness as a mineral filler to improve workability and plasticity of the concrete mixture, in amounts not to exceed fifteen percent (15%) of the weight of fine aggregate. When tested with standard laboratory sieves, the mineral filler shall meet the requirements as specified in TABLE 4.5 – MINERAL FILLERS in this Section. Fly Ash shall not be used as a filler unless approved by the Director of Community Development. If approval has been granted for use of Fly Ash, then fly ash shall conform to ASTM C618.
- E Air Entraining Admixtures. An air entraining agent shall be required and shall conform to ASTM C260. Air entrainment shall be four percent (4%) plus or minus one percent ($\pm 1\%$) for all concrete classes and verified for conformity in the field by a certified testing laboratory. Concrete with air entrainment quantity of five percent and one-half (5.5%) to seven percent (7.0%) may be accepted on condition of passing twenty-eight day (28-D) compressive strength tests and approval of the Project Manager. Concrete with air entrainment quantity greater than seven percent (7%) or less than two percent (2%) shall be rejected. Air content shall be determined by ASTM C138 or ASTM C173. No air entrainment shall be required for seal slabs.
- F Chemical Admixtures
 - 1 Water Reducers: ASTM C494, Type A
 - 2 Water Reducing Retarders: ASTM C494, Type D
 - 3 High Range Water Reducers (Superplasticizers) ASTM C494, Types F and G.
- G Prohibited Admixtures. No admixtures containing calcium chloride, thiocyanate, or materials that contribute free chloride ions in excess of one tenth of a percent (0.1%) by weight of cement shall be used in concrete mixes.
- H Fiber
 - 1 Fibrillated Polypropylene Fiber
 - a Addition Rate One and one-half pounds (1-1/2 Lbs) of

fiber per cubic yard of concrete

b Physical Properties

- (1) Material Polypropylene
- (2) Length One-half inch (1/2 In) or greater
- (3) Specific Gravity 0.91

c Acceptable Manufacturer W. R. Grace Company, Fibermesh, or approved equal

2 Steel Fiber: Comply with applicable provisions of ACI 544 and ASTM A820

a Ratio: Fifty pounds (50 Lbs) to two hundred pounds (200 Lbs) of fiber per cubic yard of concrete

b. Physical Properties

- (1) Material: Steel
- (2) Aspect Ratio [for fiber lengths of one-half inch (1/2 In) to two and one-half inch (2-1/2 In), length divided by diameter or equivalent diameter] Thirty to One (30:1) – one hundred to one (100:1)
- (3) Specific Gravity 7.8
- (4) Tensile Strength: Forty kilo-pounds per square inch (40 ksi) – four hundred kilo-pounds per square inch (400 ksi)
- (5) Young's Modulus Twenty-nine thousand kilo-pounds per square inch (29,000 ksi)
- (6) Minimum Average Tensile Strength Fifty thousand kilo-pounds per square inch (50,000 psi)
- (7) Bending Requirements Withstand bending around one eighth inch (0.125 In) diameter mandrel to angle of ninety degrees Fahrenheit (90° F), at temperatures not less than sixty degrees Fahrenheit (60° F), without breaking

- I Curing Compounds Type 2 white-pigmented liquid membrane-forming compounds conforming to ASTM C309

2.2 PRODUCTION METHODS

- A Use either ready-mixed concrete from a source approved by the Director of Community Development conforming to requirements of ASTM C94, or concrete produced by volumetric batching and continuous mixing in accordance with ASTM C685

2.3 MEASUREMENT OF MATERIALS

- A Measure dry materials by weight, except volumetric proportioning may be used when concrete is batched and mixed in accordance with ASTM C685
- B Measure water and liquid admixtures by volume

2.4 DESIGN MIX

- A Use design mixes prepared by certified testing laboratory in accordance with ASTM C1077 and conforming to requirements of this Section. Design shall be based on the required over-design factor according to ASTM C94 and assuming a coefficient of variation equal to fifteen (15). The average of three (3) consecutive strength tests shall be equal to or greater than the specified strength. Classification shall meet the requirements as specified in TABLE 4.1 – CONCRETE CLASSIFICATION MINIMUM SPECIFICATIONS in this Section.
- B Proportion of concrete materials shall be based on ACI 211.1 to comply with durability and strength requirements of ACI 318, Chapters 4 and 5, and this Specification. Submit concrete mix designs to Project Manager for review and approval.
- C Variations in proportions of concrete may be based on field experience or trial mixtures, in accordance with requirements at Section 5.3 of ACI 318, may be made, but only when approved by Project Manager.
- D Proportioning of Portland Cement and water shall meet the requirements as specified in TABLE 4.1 – CONCRETE CLASSIFICATION MINIMUM SPECIFICATIONS in this Section.
- E Add steel or polypropylene fibers only when called for on The Drawings or in another Section of these Technical Specifications.

- F Determine air content in accordance with ASTM C138, ASTM C173 or ASTM C231
- G Once a design mix for any class of concrete has been approved by the Project Manager, the mix shall not be varied as to source, quantity, quality, grading of materials, proportioning of any other way except as allowed for moisture adjustment and tolerances as specified in ASTM C685

PART III EXECUTION

3.1 BATCHING AND MIXING

- A Measure, batch, mix, and deliver ready-mixed concrete in accordance with ASTM C94, Sections 8 through 11. Produce ready-mixed concrete using automatic batching system as described in NRMCA Concrete Plant Standards, Part 2 – Plant Control Systems.
- B Measure, mix and deliver concrete produced by volumetric batching and continuous mixing in accordance with ASTM C685, Sections 6 through 8.
- C Maintain concrete workability without segregation of material and excessive bleeding. Obtain approval of Project Manager before adjustment and change of mix proportions.
- D Ready-mixed concrete delivered to site shall be accompanied by batch tickets providing information required by ASTM C94, Section 16. Concrete produced by continuous mixing shall be accompanied by batch tickets providing information required by ASTM C685, Section 14. Water withheld from the mix shall also be noted on the batch ticket. In addition to the referenced information, each batch ticket shall also include the design mix information so that the batch can be compared on site to the mix design.
- E Clean, maintain and operate equipment so that it thoroughly mixes material as required.
- F Moisture Control
 - 1 At the time of batching, all aggregates shall have been dried or drained sufficiently to result in a stable moisture content such that no visible separation of water from aggregate will take place during transportation from the proportioning plant to the point of mixing.

- 2 In no event shall the free moisture content of the fine aggregate at the time of batching exceed eight percent (8%) of its saturated, surface-dry weight. The batch-to-batch uniformity of all aggregates shall be such that variations in moisture content within one hour (1 Hr) do not exceed twelve pounds (12 Lbs) in the batch quantity for one cubic yard (1 Cy) of concrete, or that a gradual change does not exceed twenty-four pounds (24 Lbs) in a period of four hours (4 Hrs).
- 3 The Contractor shall install, and maintain in operating condition, an electrically actuated moisture meter which will indicate on a readily visible scale the percentage of moisture in the fine aggregate as it is batched, within a sensitivity of one-half percent ($1/2\%$) by weight of the fine aggregate.

G Scales

1. Scales shall be used for the accurate measurement of each of the materials entering each batch of concrete.
2. If scales are of the dial type, the dial shall be of such size and so arranged that it may be read easily from the operating platform.
3. If scales are of the multiple beam type, the scales shall be provided with an indicator operated by the main beam which will give positive visible evidence of over or underweight. The indicator shall be so designed that it will operate during the addition of the last two hundred pounds (200 Lbs) of material of any weighing. The over-travel of the indicator hand shall be at least one-third ($1/3$) of the loading travel. Indicators shall be enclosed to protect against moisture and dust.
4. Scales shall be tested by a commercial scale company and certified that the scales meet all requirements for weighing equipment. Certification shall be required whenever a scale is relocated, and at least once every six months (6 Mos). Copies of the certifications shall be provided to the Project Manager when requested.

H Recorders

- 1 An accurate recorder shall be provided for producing a digital printout of the batch number and scale readings corresponding to each of the ingredients of each concrete batch, including

zero (0) initial readings. The individual ingredients shall be indicated by name or code corresponding to each weight.

2. Each printout shall indicate date and time of batching, identification number identical to that of the concrete delivery ticket and codes for the mix design and of the Work.
3. The printout shall be prepared in duplicate, with one (1) copy delivered together with its corresponding concrete delivery ticket to the Project Manager, as specified herein before
4. Each recorder mechanism shall be enclosed in a locked, dust tight cabinet and shall be placed in a position convenient for observation

3.2. DELIVERY AND DELIVERY EQUIPMENT

- A. Hand-mixed concrete shall be made in batches not larger than one-third cubic yard ($1/3$ Cy) and only with approval of the Project Manager. Concrete shall be Sakrete or approved equal, no separate proportioning of materials outside of a batch plant will be allowed. Batching shall be in accordance with manufactures directions and stated measurements.
 1. Mixing of concrete shall be in a clean, water tight mixing box.
 2. Introduce measured amount of clean water
 3. Mix water and cement a minimum of six (6) turns or until batch maintains uniform color and consistency
 4. At no time shall bags of Sakrete be put in place, sliced open and water added in a ditch or hole.
- B. Pumping and pneumatic conveying equipment shall be of a suitable kind with adequate pumping capacity. Equipment shall be cleaned at the end of each operation. Pneumatic placement shall be controlled so that segregation does not occur in the discharged concrete. Concrete shall not be conveyed through any pipe made of aluminum or aluminum alloy.
- C. Transit mix trucks shall be in good working order. All trucks shall have the following operational, delivery and placing conditions and equipment:
 1. Actuated drum revolution counter shall be in good working order.

a. Batch shall be mixed at the plant between fifty (50) and seventy (70) revolutions before being transported to site

b. At no time shall a batch be placed when mixed less than seventy (70) revolutions or more than 100 revolutions, except as noted in 3.2.C 1.c

c. Batch shall be mixed for a minimum of twenty-five (25) revolutions after additional water has been introduced into the mix on site. This procedure shall be repeated for each instance when water is added.

2. Water supply reserve tank shall be supplied on each truck.

a. Water tank shall be full on arrival at site

b. Water tank shall have accurate scale to measure gallons of water to be introduced to truck mixer

c. Project Manager shall verify the amount of water used on site for mixing and verify the recording on the trip ticket.

3. Drum mixer shall be watertight and shall be free of hardened concrete and shall have fins that are capable of thoroughly mixing concrete.

4. Any defective equipment that cannot meet the Specifications of 3.2.C shall not be allowed on site until the deficiencies have been corrected.

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3.3 PLACING CONCRETE

A. Give sufficient advance notice to the Project Manager [at least forty-eight hours (48 Hrs) prior to commencement of operations] to permit inspection of forms, reinforcing steel, embedded items and other preparations for placing concrete. Place no concrete prior to the Project Manager's approval.

B. Schedule concrete placing to permit completion of finishing operations in daylight hours. However, when necessary to continue after daylight hours, site shall be illuminated completely as required. When rainfall occurs after placing operations are started, provide covering to protect work.

- C. Subgrade surface shall be sprinkled sufficiently with water to prevent absorption of water from freshly placed concrete.
- D. Forms and rebar shall be cleaned of all foreign materials, subgrade shall be free of all trash and other materials.
- E. Batches that do not have computer batch tickets or delivery tickets shall be refused. Once a truck has been refused for any reason it shall leave the site. Attempts to fix deficiencies on site shall not be allowed.
- F. Temperature specifications for placement of concrete shall be as follows and as specified in TABLE 4.6 – TEMPERATURE REQUIREMENTS FOR PLACEMENT in this Section:
1. Ambient (Air) temperature shall be taken in the shade and shielded from direct sunlight and wind.
 2. Minimum ambient temperature for concrete placement shall be thirty-five degrees Fahrenheit (35° F) and rising. At no time shall concrete be placed when ambient temperature is below forty degrees Fahrenheit (40° F) and falling.
 3. Maximum ambient temperature shall be ninety degrees Fahrenheit (90° F). Addition of ice to concrete mix shall allow ambient temperature maximum to be one hundred degrees Fahrenheit (100° F), upon approval of the Project Manager.
 4. Minimum concrete temperature shall be fifty degrees Fahrenheit (50° F).
 5. Maximum concrete temperature shall be ninety degrees Fahrenheit (90° F).¹⁸ Addition of ice shall permit the maximum temperature to be ninety-five degrees Fahrenheit (95° F). At no time shall any concrete be placed when concrete temperature exceeds ninety-five degrees Fahrenheit (95° F).
- G. When adverse weather conditions affect quality of concrete, postpone concrete placement. Protect placed concrete from temperatures below thirty-two degrees Fahrenheit (32° F) until concrete has cured for minimum of three days (3 D) at seventy degrees Fahrenheit (70° F) or five days (5 D) at fifty degrees Fahrenheit (50° F).
- H. Time constraints – Concrete shall be placed so that there is no more than one hour (1 Hr) of time elapsed from last discharge to next discharge. Addition of allowable dosage of water retardation agent

shall extend time limit by one-half hour (1/2 Hr). Limit on time from batch to placement shall be as specified in TABLE 4.7 – TRANSPORTING TIME REQUIREMENTS in this Section.

- I If no water has been withheld from the mix at the plant, then addition of water to mix on site shall not exceed two gallons per cubic yard (2 Gal/Cy) of concrete. If water has been withheld, then up to the amount withheld can be added upon approval of the Project Manager. Any additional water above that, but not to exceed two gallons per cubic yard (2 Gal/Cy), shall be added only with the approval of the Project Manager. At no time shall slump exceed mix design nor be more than one and one-half inches (1-1/2 In) less than specified slump. All water that has been added to the truck shall be written on the trip ticket and batch ticket by the Project Manager.
- J. Use troughs, pipes and chutes lined with approved metal or synthetic material for placing concrete so that concrete ingredients are not separated. Keep chutes, troughs and pipes clean and free from coatings of hardened concrete. Allow no aluminum or aluminum alloy material to come in contact with concrete.
- K Limit free fall of concrete to four feet (4 Ft). Do not deposit large quantities of concrete at one location so that running or working concrete along forms is required. Do not jar forms after concrete has taken initial set, and do not place strain on projecting reinforcement rods or anchor bolts.
- L Use tremies for placing concrete in walls and similar narrow or restricted locations. Use tremies made in sections, or provide in several lengths, so that outlet may be adjusted to proper height during placing operations.
- M Place concrete in continuous horizontal layers approximately twelve inches (12 In) thick. Place each layer while layer below is still plastic.
- N Compact each layer of concrete with concrete spading implements and mechanical vibrators of approved type and adequate number for size of placement. When immersion vibrators cannot be used, use form vibrators. Apply vibrators to concrete immediately after depositing. Move vibrator vertically through layer of concrete just placed and several inches into plastic layer below. Do not penetrate or disturb layers previously placed which have partially set. Do not use vibrators to aid lateral flow concrete. Closely supervise consolidation to ensure uniform insertion and duration of immersion.
- O. Handling and Placing Concrete. Conform to ACI 302.1R, ACI 304R

and ACI 309R.

3.4 FIELD QUALITY CONTROL

- A Testing shall be performed under provisions of Sections 01470 – Testing Laboratory Services and 01475 – Quality Control Testing Procedures.
- B Unless otherwise directed by the Project Manager, the following minimum testing of concrete shall be required. Testing shall be performed by qualified individuals employed by approved independent testing laboratory, and conform to requirements of ASTM C1077.
- 1 Take concrete samples in accordance with ASTM C172
 - 2 Make one (1) set of compression test specimens for each mix design at least once per day and for each one hundred cubic yards (100 Cy) or fraction thereof. Make, cure and test specimens in accordance with ASTM C31 and ASTM C39.
 - a Tests are representative random sampling of each one hundred cubic yard (100 Cy) unit placement of concrete. Passing or failure of compressive testing shall represent all one hundred cubic yard (100 Cy) for acceptance or deficiency.
 - 3 When taking compression test specimens, test each sample for slump according to ASTM C143, for temperature according to ASTM C1064, for air content according to ASTM C231, and for unit weight according to ASTM C138.
 - 4 Inspect, sample and test concrete in accordance with ASTM C94, Section 13, 14, and 15, and ACI 311-5R.
- C Test Cores. Conform to ASTM C42
- D Testing High Early Strength Concrete: When Type III cement is used in concrete, specified seven day (7 D) and twenty-eight day (28 D) compressive strengths shall be applicable at three days (3 D) and seven days (7 D), respectively.
- E Seven day (7 D) compressive strengths shall be seventy (70%) percent of twenty-eight day (28 D) strength requirement.
- F If twenty-eight day (28 D) compressive strengths fail to meet class specified requirements, then those portions of structure represented by

test specimens shall be replaced at no additional cost to City.

- G. Take one (1) slump test a minimum of every fifty cubic yards (50 Cy) of placement according to ASTM C143. Project Manager shall be authorized to have testing laboratory take slump on any questionable concrete

3.5 FINISHING

- A. Burlap drag or transverse broom for finishing slab.

1. Burlap Finish – Furnish four (4) plies of ten ounce (10 oz) burlap material fastened to bridge to form continuous strip of burlap full width of pavement. Maintain contact three foot (3 Ft) width of burlap material with pavement surface. Keep burlap drags clean and free of encrusted mortar. Burlap shall be dragged longitudinally (parallel) with the centerline of the roadway. Finish look shall be straight lined. Swoops, diagonals or ridges shall not be allowed.

2. Broom Finish – Furnish brooms with either horsehair or synthetic fiber bristles. Straw bristles shall not be allowed. Keep bristles clean and free of encrusted mortar. Broom shall be dragged latitudinally (perpendicular) with the centerline of the roadway. Adequate combination of pressure and bristle thickness shall be used to provide medium to heavy texture. Finish look shall be straight lined. Swoops, diagonals or ridges shall not be allowed.

3. Fire hose finishing shall not be allowed.

- B. Finishing for patches and structures shall conform to the following requirements.

1. Patch honeycomb, minor defects and form tie holes in concrete surfaces with cement mortar mixed one part cement to two parts fine aggregate. Repair defects by cutting out unsatisfactory material and replacing with new concrete, securely keyed and bonded to existing concrete. Finish to make junctures between patches and existing concrete as inconspicuous as possible. Use stiff mixture and thoroughly tamp into place. After each patch has stiffened sufficiently to allow for greatest portion of shrinkage, strike off mortar flush with surface.

2. Apply rubbed finish to exposed surfaces of formed concrete

structures as noted on The Drawings After pointing has set sufficiently, wet surface with brush and perform first surface rubbing with No 16 carborundum stone, or approved equal. Rub sufficiently to bring surface to paste, to remove form marks and projections, and to produce smooth, dense surface Add cement to form surface paste as necessary Spread or brush material, which has been ground to paste, uniformly over surface and allow to reset In preparation for final acceptance, clean surfaces and perform final finish rubbing with No 30 carborundum stone or approved equal. After rubbing, allow paste on surface to reset, then wash surface with clean water Leave structure with clean, neat and uniform appearing finish.

C. Finish tolerances shall be as follows:

1. Top concrete surface of sidewalks shall be true planes within one-quarter inch (1/4 In) in ten feet (10 Ft)
2. Wheelchair ramps shall be held to tolerances as stated in Sections 02820 - Concrete Sidewalks and 02825 - Colored Concrete for Wheelchair Ramps.
3. Roadway slabs parallel to the centerline shall be true planes within one-sixteenth inch (1/16 In) in ten feet (10 Ft)
4. All other surfaces shall be true planes within one-quarter inch (1/4 In) in ten feet (10 Ft)
5. All tolerances shall be checked with a steel edge that has zero (0) tolerance deviation.

3.6 CURING

- A. Comply with ACI 308. Cure by preventing loss of moisture, rapid temperature change and mechanical injury for period of seven (7) curing days when Type II or IP cement has been used and for three (3) curing days when Type III cement has been used. Start curing as soon as free water has disappeared from concrete surface after placing and finishing A curing day is any calendar day in which temperature is above fifty degrees Fahrenheit (50° F) for at least nineteen hours (19 Hrs). Colder days may be counted when air temperature adjacent to concrete is maintained above fifty degrees Fahrenheit (50° F) In continued cold weather, when artificial heat is not provided, removal of forms and shoring may be permitted at end of calendar days equal to twice required number of curing days However, leave soffit forms and shores in place until concrete has reached specified twenty-eight day**

(28 D) strength, unless directed otherwise by the Project Manager

1. **Moisture Cover Curing Method:** The concrete surfaces to be cured shall be covered with specific moisture-retaining cover material placed in the widest practical width with sides and ends lapped at least three inches (3 In) and sealed by waterproofing tape or adhesive. All holes or tears that develop during curing period shall be repaired immediately. Minimum curing time for this method shall be seven days (7 D).
2. **Liquid Membrane Curing:** The specified membrane curing compound shall be applied to damp concrete surfaces as soon as possible after the final finishing operations are complete, but in no case later than two hours (2 Hrs) after finishing. Curing compound shall be applied uniformly over the concrete surfaces by means of approved spray equipment in accordance manufacturer's instruction. No deformities (tear drop, pattern, etc.) shall be accepted. Should the cure coat be damaged from any cause during the curing period, damaged portions shall be repaired and recoated immediately with additional compound.
- B **Formed surfaces not requiring rubbed-finished surface:** shall be cured by leaving forms in place for full curing period. Keep wood forms wet during curing period. Add water as needed for other types of forms. Non-structural concrete forms, upon approval of the Project Manager, may be removed after two days (2 D) and curing compound applied.
- C **Rubbed Finish:**
 1. For formed surfaces requiring rubbed finish, remove forms as soon as practicable without damaging surface.
 2. After rubbed-finish operations are complete, continue curing formed surfaces by using either approved curing/sealing compounds or moist cotton mats until normal curing period is complete.
- D **Unformed Surfaces.** Cure by membrane curing compound method.
 1. After concrete has received final finish and surplus water sheen has disappeared, immediately seal surface with uniform coating of approved curing compound, applied at rate of coverage recommended by manufacturer or as directed by the Project Manager. Do not apply less than one gallon (1 Gal) per one hundred eighty square feet (180 Sf) of area. Provide satisfactory means to properly control and check rate of

application of compound

2. Thoroughly agitate compound during use and apply by means of approved mechanical power pressure sprayers equipped with atomizing nozzles. For application on small miscellaneous items, hand-powered spray equipment may be used. Prevent loss of compound between nozzle and concrete surface during spraying operations.
3. Do not apply compound to dry surface. When concrete surface has become dry, thoroughly moisten surface immediately prior to application of compound. At locations where coating shows discontinuities, pinholes or other defects, or when rain falls on newly coated surface before film has dried sufficiently to resist damage, additional coat of compound shall be applied at specified rate of coverage.

3.7 PROTECTION

- A. Protect concrete against damage until final acceptance by City.
- B. Protect fresh concrete from damage due to rain, hail, sleet, or snow. Provide protection while concrete is still plastic, and whenever precipitation is imminent or occurring.
- C. Do not backfill around concrete structures or subject them to design loadings until components of structure needed to resist loading are complete and have reached specified twenty-eight day (28 D) compressive strength, except as authorized otherwise by the Project Manager.
- D. Concrete pavement shall not be used before the twenty-eight day (28 D) compressive strength unless the seven day (7 D) compressive strength test has reached the twenty-eight day (28 D) strength requirement. Pavement can be used for light vehicles only after the twenty-eight day (28 D) strength has been met. At no time shall any equipment or vehicles heavier than eight thousand pounds (8000 Lbs) GVW (Gross Vehicle Weight) be allowed on pavement before it passes the twenty-eight day (28 D) compressive strength tests.

3.8 REMOVAL OF FORMS AND SHORING

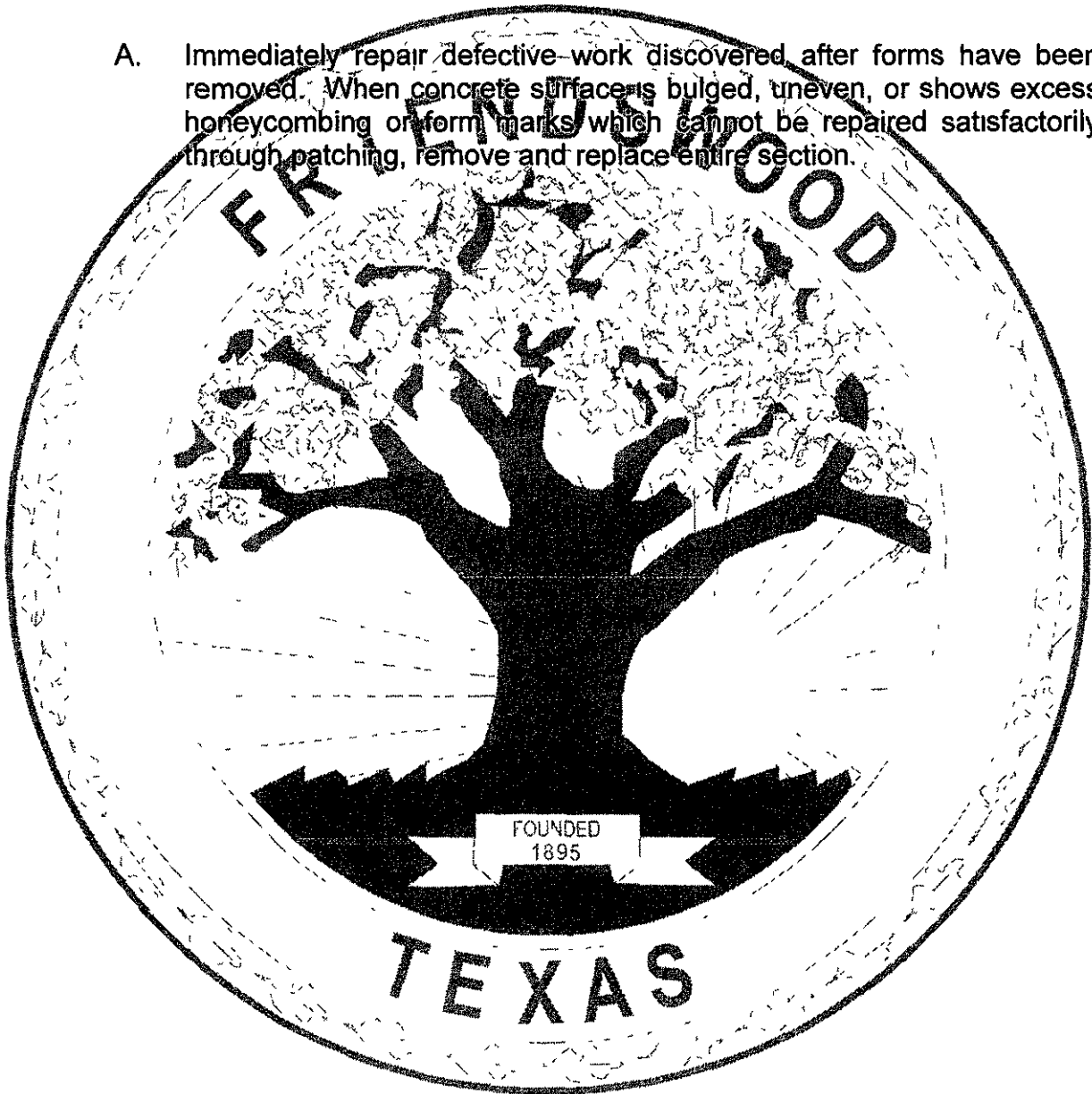
- A. Remove forms from surfaces requiring rubbing only as rapidly as rubbing operation progresses. Remove forms from vertical surfaces not requiring rubbed-finish when concrete has aged for required number of curing days. When curing compound is used, do not remove forms

before during first (1st) two (2) full days after concrete placement.

- B Leave soffit forms and shores in place until concrete has reached specified twenty-eight day (28 D) strength, unless directed otherwise by the Project Manager

3 9 DEFECTIVE WORK

- A. Immediately repair defective work discovered after forms have been removed. When concrete surface is bulged, uneven, or shows excess honeycombing or form marks which cannot be repaired satisfactorily through patching, remove and replace entire section.



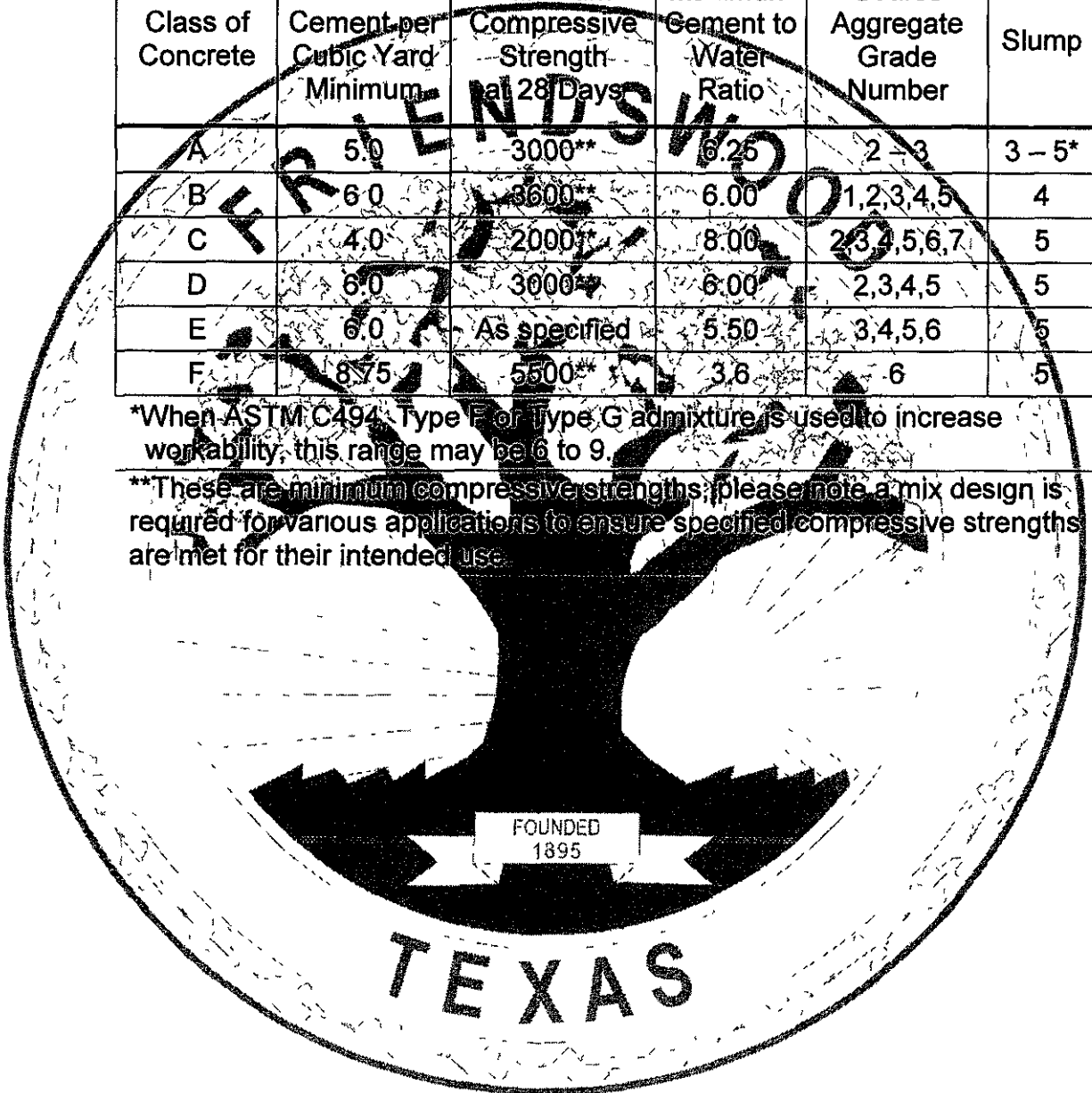
PART IV: TABLES

4.1 CONCRETE CLASSIFICATION MINIMUM SPECIFICATIONS

CONCRETE CLASSIFICATION MINIMUM SPECIFICATIONS					
Class of Concrete	Sacks of Cement per Cubic Yard Minimum	Minimum Compressive Strength at 28 Days	Maximum Cement to Water Ratio	Coarse Aggregate Grade Number	Slump
A	5.0	3000**	6.25	2-3	3-5*
B	6.0	3600**	6.00	1,2,3,4,5	4
C	4.0	2000*	8.00	2,3,4,5,6,7	5
D	6.0	3000**	6.00	2,3,4,5	5
E	6.0	As specified	5.50	3,4,5,6	5
F	8.75	5500**	3.6	6	5

*When ASTM C494, Type F or Type G admixture is used to increase workability, this range may be 6 to 9.

**These are minimum compressive strengths; please note a mix design is required for various applications to ensure specified compressive strengths are met for their intended use.



4.2 COARSE AGGREGATE GRADATION

COARSE AGGREGATE GRADATION CHART										
Aggregate Grade No	Nominal Size Inches	Percent Retained on Each Sieve								
		2-1/2 In	2 In.	1-1/2 In.	1 In	3/4 In	1/2 In.	3/8 In.	No. 4	No. 8
1	2	0	0-20	15-50		60-80			95-100	
2 (467)*	1-1/2		0	0-5		30-65		70-90	95-100	
3	1-1/2		0	0-5		10-40	40-75		95-100	
4 (57)	1			0	0-5		40-75		90-100	95-100
5 (67)*	3/4				0	0-10		45-80	90-100	95-100
6 (7)	1/2					0	0-10	30-60	85-100	95-100
7	3/8						0	5-30	75-100	
8	3/8						0	0-5	35-80	90-100

* Numbers in parenthesis indicate that the gradations conform to Corresponding ASTM gradation in ASTM C33

4.3 DELETERIOUS SUBSTANCES

MAXIMUM PERMISSIBLE PERCENTAGES	
Deleterious Material	Maximum Percentage
Material removed by decantation, ASTM C117	1.0 %
Shale, slate or similar materials	1.0 %
Clay lumps	0.25 %
Soft fragments	3.0 %
Others, including friable, thin, elongated or laminated pieces	3.0 %

Sum of all deleterious ingredients, exclusive of material removed by decantation shall not exceed 5 % by weight

4.4 FINE AGGREGATE GRADATION

FINE AGGREGATE GRADATION CHART								
Aggregate Grade No.	Percent Retained on Each Sieve							
	3/8 In.	No. 4	No. 8	No. 16	No. 30	No. 50	No. 100	No. 200
1	0	0-5	0-20	15-50	35-75	65-90	90-100	97-100

4.5 MINERAL FILLERS

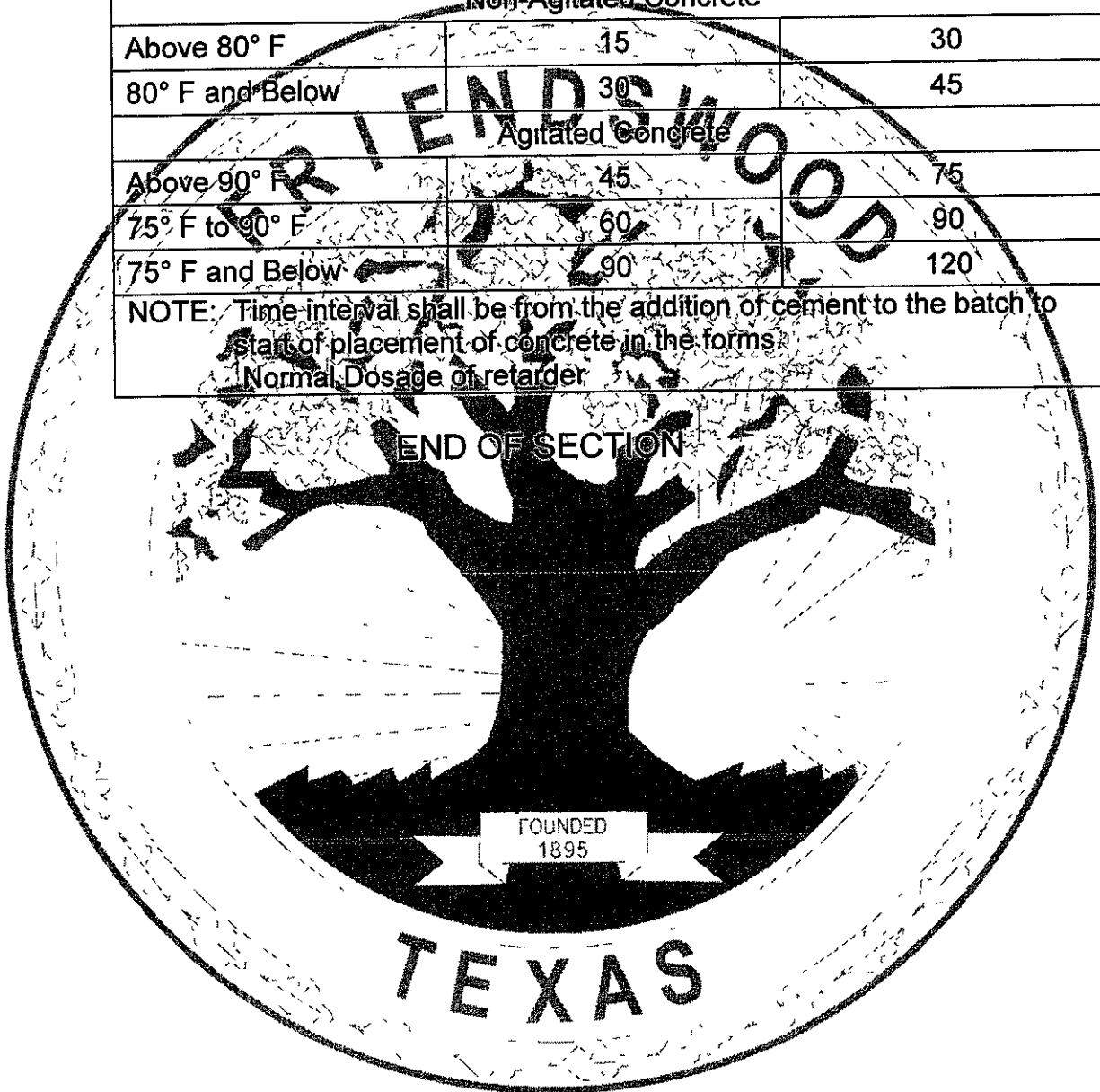
MINERAL FILLER GRADATION CHART		
Percent Retained on Each Sieve		
No. 20	No. 30	No. 100
0 %	0 to 5 %	0 to 30 %

4.6 TEMPERATURE REQUIREMENTS FOR PLACEMENT

PLACEMENT TEMPERATURE REQUIREMENTS	
AMBIENT TEMPERATURE	
Minimum temperature to start placing concrete	35° and rising
Minimum temperature to stop placing concrete	40° and falling
Maximum temperature for placing concrete without ice	90°
Maximum temperature for placing concrete with ice	100°
CONCRETE TEMPERATURE	
Minimum concrete temperature	50°
Maximum concrete temperature without ice	90°
Maximum concrete temperature with ice	95°
MINIMUM CURING TIMES WHEN PLACED CONCRETE HAS BEEN EXPOSED TO FREEZING TEMPERATURES	
From 50° to 70°, minimum days	5
70° and above, minimum days	3
¹Ambient temperature is to be taken as specified in paragraph 3.3.F 1 of this Section	

4.7 TRANSPORTING TIME REQUIREMENTS

TRANSPORTING TIME REQUIREMENTS FOR PLACEMENT		
Ambient Temperature	Maximum Time (No Retarding Agent) in Minutes	Maximum Time (With Retarding Agent) in Minutes¹
Non-Agitated Concrete		
Above 80° F	15	30
80° F and Below	30	45
Agitated Concrete		
Above 90° F	45	75
75° F to 90° F	60	90
75° F and Below	90	120
NOTE: Time interval shall be from the addition of cement to the batch to start of placement of concrete in the forms. Normal Dosage of retarder		



AGENDA

ITEM

#8

Dennis J. Harris, Sr.
Director



Galveston County Department of Parks & Senior Services

www.galvestonparks-seniors.org

January 31, 2011

To: Hon Mark Henry, County Judge
Members' of Commissioner's Court

From: Dennis J Harris, Director
Department of Parks & Senior Services

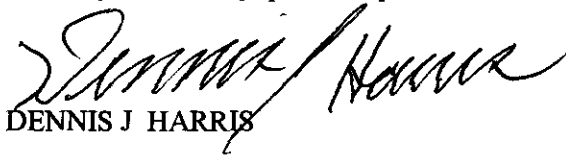
Subject: Agenda Item-Bolivar Beach Sticker Program

Please place the following item on Commissioners' Court agenda for **Wednesday, February 9, 2011.**

Consideration of execution of Sign Rental agreement between Galveston County and Don Suderman, Owner for the public's awareness of the Bolivar Beach Sticker Program submitted by Parks & Senior Services, Director

The current agreement has expired and we are requesting to enter into a new (3) year agreement to help promote the awareness of the Bolivar Beach Sticker Program Attached you will find an agreement for your review and consideration

Should you have any questions please do not hesitate to contact me


DENNIS J HARRIS

Attachments

cc Andy Hansen, Parks Operations Manager

Our Mission

To provide comprehensive and diverse recreational and senior services opportunities for Galveston County Citizens and visitors, through the stewardship of our resources

Don Suderman
P.O.Box 1252
Galveston, Texas 77553
(409) 762-8131

SIGN RENTAL AGREEMENT

This agreement, entered into this 9th day of, February 2011. By between **Don Suderman**, hereinafter lessor, and **GALVESTON COUNTY**, hereinafter lessee.

For rental of, **38'X12' SIGNSPACE**, located at,

HWY 87 @ LIGHTHOUSE, Port Bolivar, Texas

This is a three year agreement. For rental commencing on the 1st day of March, 2011, in the amount of \$3,000 annually, March 1, 2011 through February 28, 2014. Rent will increase as mutually agreed upon by parties at the time of each renewal.

This is a long term non binding agreement which gives the lessee the option to terminate lease by mail, one month prior to annual renewal.


The sign space will advertise such matters as lessee, from time to time desires. Lessee will pay for all utilities, if any, that currently services the signboard. Lessee may terminate this agreement upon 30 days notice should landlord fail to fulfill his obligation.

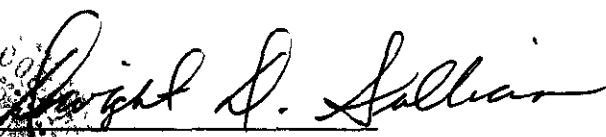


County of Galveston, Lessee
Lessor
Mark Henry, County Judge



Don Suderman,

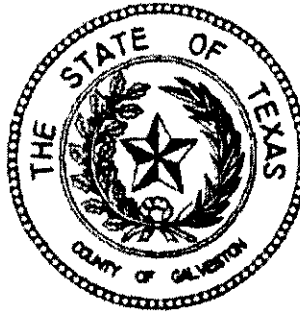



Dwight Sullivan, County Clerk

AGENDA

ITEM

#9



The County of Galveston
ROAD & BRIDGE DEPARTMENT
5115 Highway 3
Dickinson, Texas 77539

Layne Harding
Road Administrator

Office 281/534-4152
Facsimile 409/765-3247

MEMORANDUM

Date: February 2, 2011

To: Patricia Grady
Legal Liaison

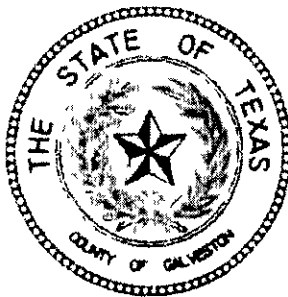
From: Layne Harding *L.H.*
Road Administrator

Re: **Inter-local Agreement – Village of Tiki Island**

Please find attached an Inter-local Agreement between the County of Galveston and the Village of Tiki Island for the County Road Department to sand requested bridge during icy road conditions. The Agreement has been signed by Phillip Hopkins, Mayor for the Village of Tiki Island, and will be delivered to your office. I am requesting this item be submitted to the Commissioners' Court on the next agenda for approval.

If additional information is needed, please contact me at 281/534-4152.

Enclosures: Interlocal Agreement
Exhibit A



The County of Galveston
ROAD & BRIDGE DEPARTMENT
5115 Highway 3
Dickinson, Texas 77539

Layne Harding
Road Administrator

Office 281/534-4152
Facsimile 409/765-3247

February 2, 2011

Phillip Hopkins, Mayor
Village of Tiki Island
802 Tiki Drive
Tiki Island TX 77554

Dear Mr Hopkins:

Please find enclosed an Interlocal Agreement for the County to sand requested bridge for the Village of Tiki Island

Please sign the Agreement and return to my office. I will submit the signed Agreement for Commissioners' Court approval

If you have any questions, please do not hesitate to call.

Sincerely,

A handwritten signature in cursive script that reads "Layne Harding".

Layne Harding
Road Administrator

LH/djs

The State of Texas

County of Galveston

This Interlocal Cooperation Act Agreement is between the County of Galveston ("County"), and Village of Tiki Island ("Requesting Agency") a political subdivision of the State of Texas

Requesting Agency is in need of having work performed by the County Road Department on various roads, parking lots and similar public works belonging to it located within its jurisdictional limits ("Project"). The work to be performed is specified in Exhibit "A". Each separate road, parking lot, or similar public work will be a segment of the Project.

County is willing to perform the work upon the terms and conditions stated in this Agreement.

Requesting Agency has specified the work to be done and the materials to be used on the Project.

Now, Therefore, for and in consideration of the mutual covenants herein expressed, it is agreed as follows

County agrees to furnish labor and equipment for the Project at the costs set forth in Exhibit "A". Such labor and equipment will be available only at such times and for such periods of time as they are not needed for the maintenance of County roads or the performance of other County functions or obligations.

County will provide supervisory personnel to direct its operations.

County's determination of the times and periods of time that its personnel and equipment

are needed for other duties and times and the periods of time that its personnel and equipment are available for use on the Project is final.

Requesting Agency will monitor County's work on each segment of the Project, point out any deficiency, if any, and request correction of such deficiency prior to County's completion of work on the applicable segment. County will make such corrections as are reasonably requested. County will not be responsible for any deficiency that is not noted and requested corrected by Requesting Agency prior to completion of its work on the segment.

The County will specify and supply all materials required on the Project. The actual cost of the materials used will be included in the final invoice.

Upon completion of each segment of the Project under construction, County's duties regarding such segment shall end. Requesting Agency will immediately issue a check to County in the amount specified for the completed segment. Requesting Agency will be responsible for all future maintenance of each segment of the Project as may be needed or required.

No provision of this Agreement shall be construed to impose, create or increase any liability to any third party whatsoever. This Agreement shall not be construed to operate for the benefit of any third party.

The County will not be responsible for damages to property or for injuries to persons driving upon or otherwise using or occupying any part of the Project. The County will not be responsible for damages to property or injuries to persons that may arise from or be incident to the design, construction, maintenance and use of any such part of the Project. Rather, as between the County and Requesting Agency the Requesting Agency shall be so responsible.

This Agreement constitutes the sole and only agreement of the parties hereto and supersedes any prior understanding or written or oral agreement between the parties representing the within subject matter

County will approve the Project by execution of this Agreement and by a Commissioners' Court Order as required by §791.014 of the Government Code.

Both parties agree:

- 1 each party to the contract has authorized the contract;
2. each party to the contract is paying for the performance of the contract from current revenues,
3. each party is paying fair compensation for the services or products rendered; and
- 4 each party to the contract is authorized by law to perform the functions or services to be performed under the contract.

The rest of this page has intentionally been left blank

Executed this 9th day of February, 2011

County of Galveston

By: 

Mark Henry
County Judge

Attest:


Dwight Sullivan
County Clerk

By: 

Village of Tiki Island
() City Manager ☒ Mayor () Other

Attest:


Karen Hagema
Secretary

EXHIBIT A

County of Galveston - Interlocal Agreement
Village of Tiki Island
Sanding bridge on Tiki Drive

Date:

	Qty		Unit Cost	Hours	Total Cost
<u>Labor:</u>					
	1	HEO III	\$ 18.06	1	\$ 18.06
	1	HEO II	\$ 16.38	1	\$ 16.38
					\$ 34.44
		Admin fee - 10%			\$ 3.44
<u>Equipment:</u>					
	1	Dump Truck	\$ 43.00	1	\$ 43.00
	1	Sand Spreader	\$ 3.30	1	\$ 3.30
	1	Pickup Truck	\$ 25.00	1	\$ 25.00
					\$ 71.30
					0.25
					<u>17.83</u>
		Total Cost - Labor & Equipment			\$ 55.71
<u>Material:</u>					
	1	Chat Rock	\$ 24.05	Ton	\$ 24.05
		Total Cost with Actual Material used			\$ 79.76 *

Labor unit cost subject to salary increase
Material unit cost subject to price increase

* Example only This total cost is for one hour labor & equipment and 1 ton material
Total cost will vary depending on hours taken and actual material usage

AGENDA

ITEM

#10

**AGREEMENT TO TERMINATE
PARTICIPATING PROVIDER SERVICES AGREEMENT**

This termination agreement (this "Termination") is made and entered into as of the 15th day of January, 2011 by and between the Galveston County Indigent Health Care Program ("Payor") and Karl K. Covington, MD/Texas Pain & Medical Management Group ("Provider").

RECITALS

WHEREAS, Payor and Provider are parties to a Galveston County Indigent Health Care Plan Participating Provider Services Agreement effective June 1, 2009 (the "Provider Agreement"); and

WHEREAS, Payor and Provider desire to terminate the Provider Agreement.

NOW THEREFORE, for and in consideration of the premises contained herein and other good and valuable consideration, the receipt and adequacy of which are hereby forever acknowledged and confessed, the parties agree as follows:

**ARTICLE I
TERMINATION OF PROVIDER AGREEMENT**

- 1.01 Termination. On the terms set forth herein, Payor and Provider mutually agree to terminate the Provider Agreement
- 1.02 Effective Date. The Effective Date of this Termination shall be January 15, 2011 (the "Effective Date").

**ARTICLE II
CONTINUED OBLIGATIONS UNDER PROVIDER AGREEMENT**

The parties shall have no continued obligations under the Provider Agreement, with the exception of any obligations accruing prior to the date of termination and any obligations or agreements that expressly extend beyond the Effective Date.

**ARTICLE III
GENERAL PROVISIONS**

- 3.01 Entire Agreement. Each party hereto acknowledges that this Termination embodies the entire agreement and understanding between them with respect to the subject matter hereof and supersedes any prior agreements and understandings relating to the subject matter hereof. This Termination may not be altered, modified, terminated, or discharged except by a writing signed by the parties against whom such alteration, modification, termination, or discharge is sought
- 3.02 Identical Counterparts. This Termination may be executed in one or more counterparts, each of which shall for all purposes be deemed to be an original and all of which shall

collectively constitute the same instrument, but in making proof of this Termination, only one such counterpart need be produced or accounted for

3 03 Representation and Construction. By executing this Termination, the parties acknowledge that they have had the opportunity to be represented by independent counsel and review and consider the terms of the Termination. This Termination shall not be construed against or in favor of any party due to the fact that such party may or may not have authored said Termination or any provision contained herein

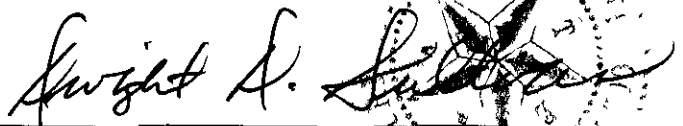
IN WITNESS WHEREOF, the parties have entered into this Termination to be effective as of the Effective Date

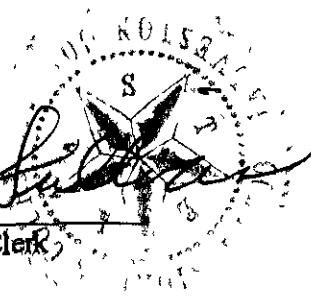
PAYOR:

**GALVESTON COUNTY INDIGENT
HEALTH CARE PROGRAM**

By: 
Mark Henry, County Judge


ATTEST:

By: 
Galveston, County Clerk



PROVIDER:

Gerald E. Petrash PA-C

By: 
Gerald E. Petrash, PA-C, Owner
3354 FM 528
Friendswood, TX 77546
281-993-2900
281-993-2901 Fax
TIN: 74-2629525

AGENDA

ITEM

#11

Shelby, Ronald

From: Shelby, Ronald
Sent: Tuesday, February 08, 2011 8 28 AM
To: Henry, Mark; Clark, Ken; Doyle, Patrick; Holmes, Stephen; O'Brien, Kevin
Cc: Grady, Patricia, Mabry, Celia-Frances; Cherry, Jane, Watson, Annye Michelle, Gilliam, Cindy, Branch, Katherine, Mendell, Freeman
Subject: HR Director Position
Attachments: Scan001 PDF

Gentlemen,

This is backup for the hiring ratification agenda item, #11, on Wednesday's agenda.

The posting has closed for this position as of 5pm yesterday. We received one applicant. That applicant is extremely qualified with a Masters in Human Resources, a Senior Professional in Human Resources (SPHR) Certification*, experience at the EEOC investigating claims, starting two HR Shops and in dealing with both Mergers and growth situations. I believe that she's able to bring a lot to the table. Her one skill set gap is a lack of experience with public sector HR, but that is simply a matter of learning which Laws and Statutes apply to county's differently from private business. It's my opinion that her skills and education far outweigh that shortcoming.

Ron

***PHR/SPHR Certification**

The Human Resources Certification Institute (HRCI), the credentialing arm of the Society of Human Resources Management (SHRM), offers professional certification at two levels: Professional in Human Resources (PHR) and Senior Professional in Human Resources (SPHR). Human Resource practitioners wishing to earn the PHR or SPHR designation must meet specific eligibility requirements and then take and pass a comprehensive written examination.

Certification is an essential tool for maintaining high professional standards. It shows that Human Resource professionals have demonstrated mastery of the HR body of knowledge and accepted the personal challenge to stay abreast of new developments in the human resource field. To be effective in their jobs, HR professionals must know how to deal effectively with HR strategic planning, international competition, management staffing, and family and social issues that affect the workplace, employee rights, and emerging HR issues.

SPHR testing eligibility Requirements - 4 years of demonstrated professional HR experience with a Master's degree or higher; 5 years of demonstrated professional HR experience with a Bachelor's degree; 7 years of demonstrated professional HR experience with less than a Bachelor's degree

Ronald C. Shelby
Director of Finance and Administration
Galveston County Texas
722 21st, 3rd Floor
Galveston, TX 77550
(409) 770-5392

-----Original Message-----

Chapman, Brandy

From: Shelby, Ronald
Sent: Tuesday, February 08, 2011 9 02 AM
To: Sullivan, Dwight, Chapman, Brandy
Cc: Grady, Patricia
Subject: Backup for Item #11



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KB)

Brandy,
Backup for the official agenda
Ron

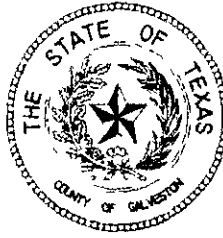
Ronald C Shelby
Director of Finance and Administration
Galveston County Texas
722 21st, 3rd Floor
Galveston, TX 77550
(409) 770-5392

-----Original Message-----

From: PS06XER@co.galveston.tx.us [mailto:PS06XER@co.galveston.tx.us]
Sent: Tuesday, February 08, 2011 8 51 AM
To: Shelby, Ronald
Subject: Scan from a Xerox WorkCentre Pro

Please open the attached document. It was scanned and sent to you using a Xerox WorkCentre Pro

Sent by: Guest [PS06XER@co.galveston.tx.us] Number of Images 2 Attachment File Type PDF
WorkCentre Pro Location 4\\Galveston\TX\USA\ Device Name PS06XER



COUNTY OF GALVESTON

RONALD C SHELBY
DIRECTOR OF FINANCE & ADMINISTRATION
BUDGET & INVESTMENT OFFICER

February 8, 2011

Kristi R. Koncaba, SPHR
512 Northview Dr
Friendswood, TX 77546

Re Director of Human Resources position for Galveston County

Ms. Koncaba,

After reviewing your resume, application, checking references and speaking with you Galveston County would like to extend to you an offer of employment as the new Director of Human Resources. This would be effective Thursday February 10th, subject to Commissioners Court's ratification of this offer on Wednesday February 9th

Based upon your education and experience, the salary offered for this position is Grade 26, Step E, or \$89,109.59 which is our highest grade for entry into county employment.

If this is agreeable to you, please email back your acceptance to Ronald.Shelby@co.galveston.tx.us. If you have further questions, please feel free to call me anytime at (409) 770-5392 or simply stop by my office on the 3rd floor of the County Courthouse (722 Moody, Galveston).

I look forward to hearing from you.

Respectfully,

Ronald C Shelby
Director of Finance and Administration

AGENDA

ITEM

#12

Galveston County, Texas
Consideration of Budget Amendments for Wednesday,
February 9, 2011
As Submitted by the Budget Officer

Fiscal Year	Amendment #	Description
2011	11-036-0209-A	Road and Bridge – Budget request for additional funds to cover various expenditures with internal transfers.
2011	11-037-0209-B	District Clerk – Budget request for two projects in District Clerk's Office – Back Scanning and Odyssey Project – Family Section.
2011	11-038-0209-C	Various Departments – Request to reorganize and reclassify various positions in Galveston County departments.

Approved by: _____

Ronald Shelby, Director of
Finance and Administration

Date: _____

2/2/11

AGENDA

ITEM

#12a

COUNTY OF GALVESTON
REQUEST FOR BUDGET AMENDMENT/TRANSFER

Department	Road and Bridge	Amendment No 11-036-0209-A
Date Submitted	February 1, 2011	(Assigned by Budget Office)

COMMISSIONER'S COURT ACTION

Please complete the following form in its entirety and submit to the Budget Office at least eleven (11) days prior to the first regularly scheduled Wednesday Commissioners Court meeting date each month. Emergency amendments will be processed at the earliest available Court meeting date. If information on this form is incomplete, the amendment will be returned to your office for completion. It is suggested that the department requesting the amendment be present on the date of its submittal to the Court for action.

THIS PORTION MUST BE FILLED OUT

GENERAL EXPLANATION

Budget Request for additional funds to cover various expenditures with internal transfers

This budget amendment does not increase the budget for FY 2011

Transfer FROM	Account Description	Amount Annualized	Auditor Use Only Acct Balance Sufficient? (Y/N)
Acct No	Line Item		
2301-312120-5746010	FM Lateral Roads - Capitalized FF&E	63,600	
2301-312120-5742000	FM Lateral Roads - Capital Outlay Vehicles	5,800	
2370-296100-5746010	Flood Control - Capitalized FF&E	1,600	
2370-296100-5742000	Flood Control - Capital Outlay Vehicles	2,000	
2370-296121-5746010	Seawall Maintenance - Capitalized FF&E	2,400	
2601-544042-5746010	Beach Maintenance - Capitalized FF&E	6,300	
TOTAL - Transfer Amount		\$ 81,700	

Transfer TO	Account Description	Amount Annualized	Auditor Use Only Acct Balance Sufficient? (Y/N)
Acct No	Line Item		
2301-312120-5353014	FM Lateral Roads - Materials Flexible Base	69,400	
2370-296121-5423401	Seawall Maintenance - M&R Pumps/ Gates	6,000	
2601-544042-5423000	Beach Maintenance - R&M Equipment	6,300	
TOTAL - Transfer Amount		\$ 81,700	

ADDITIONAL COMMENTS

This is a budget request from the Road and Bridge Department for additional funds to cover expenditures or anticipated expenditures with remaining funds after capital outlay purchases through internal transfers.

Departmental Authorization _____ Date _____
N/A _____ Date _____
Human Resources Department


Budget Office Authorization _____ Date _____

AUDITOR'S REVIEW

This budget amendment has been reviewed for validity of accounts and sufficiency of account balances used for budget transfer.

Reviewed by _____ Date _____

Auditor's Remarks _____

COMMISSIONERS COURT APPROVAL

Date Submitted _____ Date Approved 2/9/11

COUNTY OF GALVESTON
REQUEST FOR BUDGET AMENDMENT/TRANSFER

Department: Road and Bridge	Amendment No. 11-030-0200-A
Date Submitted: February 1, 2011	(Assigned by Budget Office)

COMMISSIONER'S COURT ACTION:

Please complete the following form in its entirety and submit to the Budget Office at least eleven (11) days prior to the first regularly scheduled Wednesday Commissioners Court meeting date each month. Emergency amendments will be processed at the earliest available Court meeting date. If information on this form is incomplete, the amendment will be returned to your office for completion. It is suggested that the department requesting the amendment be present on the date of its submitted to the Court for action.

THIS PORTION MUST BE FILLED OUT

GENERAL EXPLANATION:

Budget Request for additional funds to cover various expenditures with internal transfers.

This budget amendment does not increase the budget for FY 2011

Transfer FROM	Account Description	Amount	Auditor Use Only Acct Balance Sufficient? (Y/N)
		Amended	
Acct. No:	Line Item:		
2301-312120-6740010	FM Lateral Roads - Capitalized FF&E	63,800	
2301-312120-6743000	FM Lateral Roads - Capital Outlay Vehicles	5,800	
2370-200100-6740010	Flood Control - Capitalized FF&E	1,600	
2370-200100-6743000	Flood Control - Capital Outlay Vehicles	2,000	
2370-200121-6740010	Seawall Maintenance - Capitalized FF&E	2,400	
2001-644043-6740010	Beach Maintenance - Capitalized FF&E	6,300	
TOTAL - Transfer Amount		\$ 81,700	

Transfer TO	Account Description	Amount	Auditor Use Only Acct Balance Sufficient? (Y/N)
		Amended	
Acct. No:	Line Item:		
2301-312120-6463014	FM Lateral Roads - Materials Flexible Base	66,400	
2370-200121-6423401	Seawall Maintenance - M&R Pump/Gates	6,000	
2001-644043-6423000	Beach Maintenance - R&M Equipment	6,300	
TOTAL - Transfer Amount		\$ 81,700	

ADDITIONAL COMMENTS:

This is a budget request from the Road and Bridge Department for additional funds to cover expenditures or anticipated expenditures with remaining funds after capital outlay purchases through internal transfers.

[Signature] 2/3/11
Departmental Authorization Date
N/A Date
Human Resources Department

[Signature] 2/2/11
Budget Office Authorization Date

AUDITOR'S REVIEW

This budget amendment has been reviewed for validity of accounts and sufficiency of account balances used for budget transfer.

Reviewed by: _____ Date: _____

Auditor's Remarks:

COMMISSIONER'S COURT APPROVAL

Date Submitted: _____ Date Approved: _____

Yearnd, Denise

From: Sowa, Debbie
Sent: Tuesday, February 01, 2011 12:06 PM
To: Yearnd, Denise
Subject: RE: Budget transfer request

Transfer as follows

2370 296100 5746010 \$1,600 to 2370 296121 5423401

2601 544042 5746010 \$6,300 to 2601 544042 5423000

Let me know if OK.

Debbie Sowa
Finance & Administrative Supervisor
Road & Bridge Department
(281) 534-4152

From: Yearnd, Denise
Sent: Tuesday, February 01, 2011 11:08 AM
To: Sowa, Debbie
Subject: RE: Budget transfer request

We cannot transfer funds in 2370 and 2601 to fund 2301. Is there an account that you would like to transfer these to within the Fund 2601 and Fund 2370?

Denise Y. Yearnd
Senior Financial Analyst
Galveston County Budget Office

From: Sowa, Debbie
Sent: Tuesday, February 01, 2011 9:27 AM
To: Yearnd, Denise; Shelby, Ronald
Subject: FW: Budget transfer request

I forgot to mention that \$70,000 remains in 2370-296100-5746010 for a Sewer Cleanout Machine that has not been purchased yet. This is the one remaining capital equipment item that does not have a PO yet.

From: Sowa, Debbie
Sent: Tuesday, February 01, 2011 9:25 AM
To: Yearnd, Denise
Cc: Shelby, Ronald; Harding, Layne
Subject: Budget transfer request

Attached is a request to transfer left over capital equipment funds to **2301-312120-5353014 FM Lateral Rds – Materials Flexible Base**. This account is currently negative due to the Bolivar Road Contracts.

Also, the Seawall Maintenance capital equipment left over amount of \$2,400, we would like transferred to Maint/Repair Pumps & Gates. The funds in this account run out every year it seems.

If you have any questions, please let me know Thank you.

Debbie Sowa
Finance & Administrative Supervisor
Road & Bridge Department
(281) 534-4152

**Request for Budget Transfer
Road & Bridge Dept.**

2/2/2011

Transfer from	2301 312120 5746010	\$	63,600.00	FM Lateral Rds - Capitalized FF&E
	2301 312120 5742000	\$	5,800.00	FM Lateral Rds - Capital Outlay - Vehicles
	2370 296100 5746010	\$	1,600 00	Flood Control - Capitalized FF&E
	2601 544042 5746010	\$	6,300.00	Beach Maintenance - Capitalized FF&E
Transfer to	2301 312120 5353014	\$	77,300.00	FM Lateral Rds - Materials Flexible Base
Transfer from	2370 296121 5746010	\$	2,400.00	Seawall Maintenance - Capitalized FF&E
Transfer to	2370 296121 5423401	\$	2,400.00	Seawall Maintenance - Maint/Repair Pumps & Gates

AGENDA

ITEM

#12b

COUNTY OF GALVESTON
REQUEST FOR BUDGET AMENDMENT/TRANSFER

Department	District Clerk	Amendment No 11-037-0209-B
Date Submitted	January 31, 2011	(Assigned by Budget Office)

COMMISSIONER'S COURT ACTION

Please complete the following form in its entirety and submit to the Budget Office at least eleven (11) days prior to the first regularly scheduled Wednesday Commissioners Court meeting date each month. Emergency amendments will be processed at the earliest available Court meeting date. If information on this form is incomplete, the amendment will be returned to your office for completion. It is suggested that the department requesting the amendment be present on the date of its submittal to the Court for action.

THIS PORTION MUST BE FILLED OUT

GENERAL EXPLANATION

Budget request for two projects in the District Clerk's Office - Back Scanning and Odyssey Project - Family Section

This budget amendment does not increase the budget for FY 2011

Transfer FROM	Account Description	Amount Annualized	Auditor Use Only Acct Balance Sufficient? (Y/N)
Acct No 3100-159126-5754095	Line Item Imaging	283,055	—
TOTAL - Transfer Amount		\$283,055	

Transfer TO	Account Description	Amount Annualized	Auditor Use Only Acct Balance Sufficient? (Y/N)
Acct No 1101-126100-5120001	Line Item Temporary Help	243,455	—
1101-126100-5151000	Group Health Insurance	15,300	
1101-126100-5152102	Medicare FICA	3,800	
1101-126100-5153000	Pension	7,600	
1101-126100-5154000	Alternate Plan	12,900	
TOTAL - Transfer Amount		\$283,055	

ADDITIONAL INFORMATION

This is a budget request from the District Clerk Office to create 12 temporary positions for the remainder of fiscal year 2011. These positions would be working on two major projects (Back scanning and Odyssey Project - Family Section), the Back Scanning positions would disappear as soon as the project was completed and the Odyssey positions would be discussed during the 2012 budget process. The Odyssey positions would be temporary help with full benefits. This amendment is based on the idea that Galveston County can more efficiently use the project funds to do the scanning than the outside contractor (Tyler) which would provide staffing from outside.

Back scanning Project - (Total Cost - \$170,903)

6 Court Clerk Coordinator (Grade 14A-\$33,187 annually) - \$199,122 Annually - \$127,438 for FY2011 Salaries, \$6,800 Fringe Benefits
2 Entry Level Positions (Grade 10A-\$27,238 annually) - \$54,476 Annually - \$34,865 for FY2011 Salaries, \$1,800 Fringe Benefits

Odyssey Project (Family Section) - (Total Cost - \$112,152)

3 Court Clerk Coordinator (Grade 14A-\$33,187 annually) - \$99,561 Annually - \$63,719 for FY2011 Salaries, \$23,800 Fringe Benefits
1 Entry Level Positions (Grade 10A-\$27,238 annually) - \$27,238 Annually - \$17,433 for FY2011 Salaries, \$7,200 Fringe Benefits

Upon approval of this amendment, the balance in the Imaging account line will be \$211,621. If these projects were to continue through 2012, the cost for the entire 2012 year would be \$380,397 - Salaries and \$61,500 Fringe Benefits.

Departmental Authorization _____ Date _____
Human Resources Department

Budget Office Authorization Date 2/2/11

AUDITOR'S REVIEW

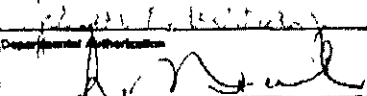
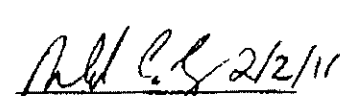
This budget amendment has been reviewed for validity of accounts and sufficiency of account balances used for budget transfer.

Reviewed by _____ Date _____

Auditor's Remarks _____

COMMISSIONERS COURT APPROVAL

Date Submitted _____ Date Approved 2/9/11

COUNTY OF GALVESTON REQUEST FOR BUDGET AMENDMENT/TRANSFER			
Department		District Clerk	Amendment No. 11-037-0298-0
Date Submitted		January 31, 2011	(Assigned by Budget Office)
COMMISSIONER'S COURT ACTION: Please complete the following form in its entirety and submit to the Budget Office at least eleven (11) days prior to the first regularly scheduled Wednesday Commissioners Court meeting date each month. Emergency amendments will be processed at the earliest available Court meeting date. If information on this form is incomplete, the amendment will be returned to your office for completion. It is suggested that the department requesting the amendment be present on the date of its submittal to the Court for action.			
THIS PORTION MUST BE FILLED OUT			
GENERAL EXPLANATION Budget request for two projects in the District Clerk's Office - Back Scanning and Odyssey Project - Family Section. This budget amendment does not increase the budget for FY 2011.			
Transfer FROM	Account Description	Amount Annualized	Auditor Use Only Acct Balance Sufficient? (Y/N)
Acct. No. 3100-100120-0754000	Line Item: Imaging	283,065	---
TOTAL - Transfer Amount		\$283,065	
Transfer TO	Account Description	Amount Annualized	Auditor Use Only Acct Balance Sufficient? (Y/N)
Acct. No. 1101-120100-0120001 1101-120100-0101000 1101-120100-0103102 1101-120100-0103000 1101-120100-0104000	Line Item: Temporary Help Group Health Insurance Medicare FICA Pension Alternate Plan	243,485 18,500 3,800 7,800 12,800	---
TOTAL - Transfer Amount		\$283,065	
ADDITIONAL INFORMATION: This is a budget request from the District Clerk Office to create 12 temporary positions for the remainder of fiscal year 2011. These positions would be working on two major projects (Back scanning and Odyssey Project - Family Section), the Back Scanning positions would disappear as soon as the project was completed and the Odyssey positions would be discussed during the 2012 budget process. The Odyssey positions would be temporary help with full benefits. This amendment is based on the idea that Galveston County can more efficiently use the project funds to do the scanning than the outside contractor (Tyler) which would provide staffing from outside.			
Back scanning Project - (Total Cost - \$170,003) 8 Court Clerk Coordinator (Grade 14A-\$33,187 annually) - \$106,122 Annually - \$127,438 for FY2011 Salaries; \$8,800 Fringe Benefits 2 Entry Level Positions (Grade 10A-\$27,238 annually) - \$54,476 Annually - \$34,886 for FY2011 Salaries; \$1,900 Fringe Benefits			
Odyssey Project (Family Section) - (Total Cost - \$112,162) 3 Court Clerk Coordinator (Grade 14A-\$33,187 annually) - \$99,561 Annually - \$43,719 for FY2011 Salaries; \$23,806 Fringe Benefits 1 Entry Level Positions (Grade 10A-\$27,238 annually) - \$27,238 Annually - \$17,433 for FY2011 Salaries; \$7,290 Fringe Benefits			
Upon approval of this amendment, the balance in the Imaging account line will be \$211,621. If these projects were to continue through 2012, the cost for the entire 2012 year would be \$380,397 - Salaries and \$61,500 Fringe Benefits.			
Departmental Authorization		Date	
			
Supervisor Endorsement		Date	
AUDITOR'S REVIEW			
This budget amendment has been reviewed for validity of accounts and sufficiency of account balances used for budget transfer.			
Reviewed by: _____		Date: _____	
Auditor's Remarks			
COMMISSIONER'S COURT APPROVAL			
Date Submitted: _____		Date Approved: _____	

AGENDA

ITEM

#12c

**COUNTY OF GALVESTON
REQUEST FOR BUDGET AMENDMENT/TRANSFER**

Department	Various Departments	Amendment No 11-038-0209-C
Date Submitted	February 3, 2011	(Assigned by Budget Office)

COMMISSIONER'S COURT ACTION

Please complete the following form in its entirety and submit to the Budget Office at least eleven (11) days prior to the first regularly scheduled Wednesday Commissioners Court meeting date each month. Emergency amendments will be processed at the earliest available Court meeting date. If information on this form is incomplete, the amendment will be returned to your office for completion. It is suggested that the department requesting the amendment be present on the date of its submittal to the Court for action.

THIS PORTION MUST BE FILLED OUT

GENERAL EXPLANATION

Request to fund various departmental reorganizations

This budget amendment does not increase the overall county budget for FY 2011

Transfer FROM	Account Description	Amount Annualized	Auditor Use Only Acct Balance Sufficient? (Y/N)
Acct No	Line Item		
2914-152500-5100000	CDBG - Salaries (Pos 2)	7,900	
1101-114000-5100000	County Clerk - Salaries (Pos 58)	18,200	
1101-114000-5152102	Co Clerk - Medicare	200	
1101-114000-5153000	Co Clerk - Pension	600	
1101-114000-5154000	Co Clerk - Alt Plan	700	
1101-921010-5912501	Transfer to Child Welfare	31,700	
1101-440100-5100000	Community Services - Salaries (Unallocated)	8,800	(From CC 1/5/2011)
1101-440100-5152102	Community Services - Medicare	100	
1101-440100-5153000	Community Services - Pension	400	
1101-440100-5154000	Community Services - Alt Plan	500	
1101-443100-5100000	Social Services - Salaries (Pos 1)	8,200	(From CC 1/5/2011)
1101-443100-5152102	Social Services - Medicare	100	
1101-443100-5153000	Social Services - Pension	600	
1101-443100-5154000	Social Services - Alt Plan	700	
TOTAL - Transfer Amount		\$ 78,700	

Transfer TO	Account Description	Amount Annualized	Auditor Use Only Acct Balance Sufficient? (Y/N)
Acct No	Line Item		
2914-152500-5100000	CDBG - Salaries (3)	4,400	
2914-152500-5100000	CDBG - Salaries (Unallocated)	3,600	
1101-114000-5100000	County Clerk - Salaries (Pos 2, 4)	7,600	
1101-114000-5100000	County Clerk - Salaries (Unallocated)	2,000	
1101-114030-5120001	Co Clerk (Elec) - Temp Help	8,800	
1101-114030-5152102	Co Clerk (Elec) - Medicare	200	
1101-114030-5153000	Co Clerk (Elec) - Pension	600	
1101-114030-5154000	Co Clerk (Elec) - Alt Plan	700	
1101-440100-5100000	Community Services - Salaries (New Pos 3)	36,300	
1101-440100-5151000	Group Health	3,700	
1101-440100-5152102	Community Services - Medicare	400	
1101-440100-5153000	Community Services - Pension	1,700	
1101-440100-5154000	Community Services - Alt Plan	2,000	
1101-111104-5100000	Comm Pct #4 - Salaries (Pos 2)	5,900	
1101-111104-5152102	Comm Pct #4 - Medicare	100	
1101-111104-5153000	Comm Pct #4 - Pension	400	
1101-111104-5154000	Comm Pct #4 - Alt Plan	500	
TOTAL - Transfer Amount		\$ 78,700	

ADDITIONAL COMMENTS

Please see attached spreadsheet and job descriptions for departmental reorganizations included in this amendment

N/A

Departmental Authorization:  Date: 2/3/11

Human Resources Department

Budget Office Authorization:  Date: 2/3/11

AUDITOR'S REVIEW

This budget amendment has been reviewed for validity of accounts and sufficiency of account balances used for budget transfer

Reviewed by _____ Date _____

Auditor's Remarks

COMMISSIONERS COURT APPROVAL

Date Submitted _____

Date Approved 2/9/11

Grady, Patricia

From: Shelby, Ronald
Sent: Thursday, February 03, 2011 11 30 AM
To: Grady, Patricia
Subject: Additional Backup for amendment C

Please add to Amednment C this email as a request to have IT and HR report directly to commissioners court in the future
Ron

Ronald C. Shelby
Director of Finance and Administration
Galveston County Texas
722 21st, 3rd Floor
Galveston, TX 77550
(409) 770-5392

Amendment Support:**11-038-0209-C**

CC Date: 2/9/2011

All Grade/Step changes are subject to Condrey review and will be adjusted accordingly to agree with the county's current Position Grading
Any correction will have no impact on the employee's salary

CDBG Housing (2914-152500)

Pos.	Title From	Title To	Salary From	Salary To	Annual Difference	FY2011 Difference	Job Description
Old 1	Director of Housing and Econ Dev (Split)		64,642	23D			
New 1		Director of Housing and Econ Dev (Duties to be shared with new Asst Dir)		64,642	23D	-	Y
Old 4	Director of Housing and Econ Dev (Split)		60,026	23A			
New 4		Asst Director of Housing & Economic Dev		60,026	23A	-	Y
Old 2	Monitoring Coordinator		66,258	23E			
New 2		Monitoring Coordinator		54,381	21E	11,877	Y
Old 3	Administrative Assistant		30,066	12A			
New 3		Executive Assistant		36,632	16A	(6,566)	Y
Savings/ (shortfall)					5,311	3,541	
Net Impact of All Changes (Fund 2914):							

County Clerk (1101-114030)

Pos.	Title From	Title To	Salary From	Salary To	Annual Difference	FY2011 Difference	Job Description
Old 3	Elections Coordinator		64,642	21L			
New 3		Chief Deputy County Clerk - Elections		64,642	22H	-	Y

County Clerk (1101-114000)

Pos.	Title From	Title To	Salary From	Salary To	Annual Difference	FY2011 Difference	Job Description
Old 2	Chief Deputy County Clerk		61,527	22F			
New 2		Chief Deputy County Clerk - Courts		64,642	22H	(3,115)	Y
Old 4	Senior Deputy County Clerk		30,066	12A			
New 4		Senior Deputy County Clerk - Accounting (Acct I)		38,487	17A	(8,421)	Y
Old 13	Misdemeanor Court Supervisor		64,647	16R7			
New 13		Chief Deputy County Clerk - Records		64,642	22H	5	Y
Old 58	Deputy County Clerk		27,238	10A			
New 58		Delete		0	n/a	27,238	*

* Portion of which to restore Temp Help Funds in Elections,

Facilities (1101-170100)

Pos.	Title From	Title To	Salary From	Salary To	Annual Difference	FY2011 Difference
Old	1 Director of Planning & Infrastructure					
New	1	Chief of Staff	111,286 28F	111,286 28F	-	-

Y

County Judge (1101-111000)

Pos.	Title From	Title To	Salary From	Salary To	Annual Difference	FY2011 Difference
Old	2 Administrative Assistant					
New	2	Executive Assistant	34,867 12G	34,867 15A	-	-
Old	3 Executive Assistant					
New	3	Legal Liason	66,258 16R8	66,258 24A	-	-

Y

Commissioner Pct #4 (1101-11104)

Pos.	Title From	Title To	Salary From	Salary To	Annual Difference	FY2011 Difference
Old	2 Administrative Assistant					
New	2	Commissioner's Legislative Aide	40,435 12M	49,267 16M	(8,832)	(5,888)

Y

Community Services (1101-440100)

Pos.	Title From	Title To	Salary From	Salary To	Annual Difference	FY2011 Difference
Old	1 Director of Community Services					
New	1	Director of Community Services (Reduced Duties)	91,337 26F	66,258 24A	25,079	16,719
Old	0 None					
New	3	Asst Director of Community Services (Increase given for additional duties as Asst Director of Community Services on top of Child Welfare Duties) (Salary \$54,381 total, \$36,632 available from Child Welfare Community Outreach position)	- 0	54,381 22A	(54,381)	(36,254)

Y

Child Welfare Transfer (1101-921010/2501-443300)

Pos.	Title From	Title To	Salary From	Salary To	Annual Difference	FY2011 Difference
Old	1 Community Outreach Coordinator					
New	1	Delete/Transfer to Comm Services (Reduce Transfer to Child Welfare)	36,632 16A	- 0	36,632	24,421

n/a

Social Services (1101-443100)

<u>Pos.</u>		<u>Title From</u>	<u>Title To</u>	<u>Salary From</u>	<u>Salary To</u>	<u>Annual Difference</u>	<u>FY2011 Difference</u>
Old	1	Social Services Manager		61,527	22F		
New	1		Social Services Manager (Supervisor)		49,266	20E	8,174
						12,261	Y
				Savings/			
				(shortfall)			
						26,466	17,644
							Savings

Net Impact of All Changes (Gen Fund, across all departments):

AGENDA

ITEM

#13

On this the 9th day of February, 2011, the Commissioners' Court of Galveston County, Texas convened in a regularly scheduled meeting with the following members thereof present

Mark Henry, County Judge;
Patrick F. Doyle, Commissioner, Precinct No. 1;
Kevin O'Brien, Commissioner, Precinct No. 2;
Stephen D. Holmes, Commissioner, Precinct No. 3;
Kenneth Clark, Commissioner, Precinct No. 4; and
Dwight D. Sullivan, County Clerk

when the following proceedings, among others, were had, to-wit:

An Order Designating the Third Tuesday of Each Month as the Regular Term of the Galveston County Commissioners' Court Commencing February 15, 2011.

Whereas, V T C.A , Local Government Code 81 005(a) provides that at the last regular term of each fiscal year of the County, the Commissioners' Court by order shall designate a day of the week on which the Court shall convene in a regular term each month during the next fiscal year.

Whereas, the fiscal year for the County of Galveston begins on October 1 of each year,

Whereas, on September 30, 2010, the Commissioners' Court designated the first Wednesday of each month as its regular term, and

Whereas, in accordance with the provisions of V T C A Local Government Code §81 005(h) the Commissioners' Court may designate a different day of the week on which the Court shall convene in a regular term each month other than the day of the week previously established; and

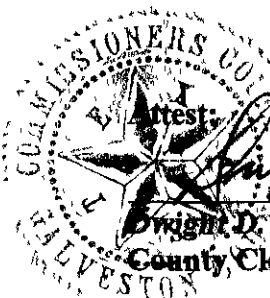

Whereas, it is the desire of the Commissioners' Court to designate a different day

Now, Therefore, Be it Ordered that, commencing February 15, 2011 the Commissioners' Court shall convene in a regular term on the third Tuesday of each month at 1 00 p m

Upon Motion Duly Made and Seconded the above Order was unanimously passed this 9th day of February, 2011

County of Galveston, Texas

By 
Mark Henry, County Judge


Attest:

Dwight D. Sullivan
County Clerk

AGENDA

ITEM

#14a

COMMISSIONER'S COURT BUYOUT LIST 2/09/2011 COURT ACTION DATE

No	Court Action Date	GCAD Number	Property ID	Owner's Last Name	Owner's First Name	Damaged Property Address	Presented Offer Date
1	4/14/2010	4204-0001-0010-000	R124930	Wooley	Tom D & Melinda	16702 W Beach Rd Jamaica Beach TX	3/18/2010
2	4/14/2010	4204-0001-0011-000	R124991	Shubert	Linda E & Jack	16706 W Beach Rd Jamaica Beach TX	3/16/2010
3	4/14/2010	4204-0002-0010-000	R125003	Picone	Arthur Jr & Christy Schluter	16734 W Beach Rd Jamaica Beach TX	3/14/2010
4	4/14/2010	4215-0000-0002-000	R125371	Jammal	Cory T	16929 Jamaica Beach Rd Jamaica Beach TX	3/18/2010
5	4/14/2010	4215-0000-0003-000	R125372	Rice	William R	16925 Jamaica Beach Rd Jamaica Beach TX	3/18/2010
6	4/14/2010	4215-0000-0004-000	R125373	McDaniel	Michael	16921 Jamaica Beach Rd Jamaica Beach TX	3/17/2010
7	4/14/2010	4215-0000-0007-000	R125376	Van Vulpem	Pauline & Betty F Wallace	16913 Jamaica Beach Rd Jamaica Beach TX	3/20/2010
8	4/14/2010	4215-0000-0010-000	R125379	Murphy	Anne	16930 Beachcomber Jamaica Beach TX	3/16/2010
9	4/14/2010	1204-0000-0024-000	R172208	McGee	Webster R	2784 Hwy 87 Gilchrist TX 77617	4/1/2010
10	4/14/2010	4050-0000-0341-000	R179218	Vandling	Weny & Robert	2578 Holiday Drive Crystal Beach TX 77650	3/18/2010
11	4/14/2010	4980-0003-0029-000	R179403	Jacobs	Dan	963 S Stingaree Dr Crystal Beach TX 77650	4/5/2010
12	4/14/2010	6040-0000-0029-000	R179921	Downs	Bradford K & Clara	2888 Tropicana Dr Crystal Beach TX 77650	3/16/2010
13	4/14/2010	6040-0000-0033-000	R179925	Meaux Sr	Lamont E	2910 Tropicana Dr Crystal Beach TX	3/17/2010
14	4/14/2010	6040-0000-0034-000	R179926	Brown	James N DDS	2918 Tropicana Dr Crystal Beach TX	3/16/2010
15	4/14/2010	6040-0000-0035-000	R179927	Wolfe	Larry	2920 Tropicana Crystal Beach TX	3/17/2010
16	4/14/2010	7120-0008-0011-000	R180977	Spell	Lena J	2809 Tradewinds Crystal Beach TX 77650	3/16/2010
17	4/14/2010	7120-0008-0012-000	R180978	Cowle	Mark	2793 Tradewinds Ln Crystal Beach TX	3/16/2010
18	4/14/2010	7120-0008-0013-000	R180979	Garza	Charles V	2789 Tradewind Ln Crystal Beach TX	3/16/2010
19	4/14/2010	7120-0010-0004-000	R180999	Bridwell	Ronald P	2764 Tradewind Ln Crystal Beach TX	3/16/2010
20	4/14/2010	7120-0011-0001-000	R181004	Franchville	Robert	2782 Tradewind Ln Crystal Beach TX	3/16/2010
21	4/14/2010	7120-0011-0005-000	R181008	Andruess	Paul	2794 Tradewind Ln Crystal Beach TX 77650	3/17/2010
22	4/14/2010	7120-0011-0009-000	R181012	Salter	James A	2812 Tradewind Ln Crystal Beach TX	3/16/2010
23	4/21/2010	1204-0000-0002-000	R172186	Sanchez	Eddie & Elizabeth	2618 Hwy 87 Gilchrist TX 77617	4/1/2010
24	4/21/2010	1204-0000-0004-000	R172188	Konarik	Victor & Patrice	2632 Hwy 87 Gilchrist TX 77617	4/14/2010
25	4/21/2010	1204-0000-0005-000	R172189	Popejoy, Jr	Lee T	2640 Hwy 87 Gilchrist TX 77617	4/6/2010
26	4/21/2010	1204-0000-0017-000	R172201	Miller	Michael D	2728 Hwy 87 Gilchrist TX 77617	4/14/2010
27	4/21/2010	1204-0000-0018-000	R172202	Kirkland	Gloria	2738 Hwy 87 Gilchrist TX 77617	4/14/2010
28	4/21/2010	1204-0000-0023-000	R172207	Darter	Bruce & Leonard David	2782 Hwy 87 Gilchrist TX 77617	4/14/2010
29	4/21/2010	1204-0000-0028-000	R172212	Jones	Scott & Shannon	2810 Hwy 87 Gilchrist TX 77617	4/8/2010
30	4/21/2010	1204-0000-0029-000	R172213	Callin	Jeff & Kay	2820 Hwy 87 Gilchrist TX 77617	4/5/2010
31	4/21/2010	1204-0000-0032-000	R172216	Reedy	Jean M	2834 Hwy 87 Gilchrist TX 77617	4/5/2010
32	4/21/2010	1204-0000-0036-002	R172224	Sage	Hope	2866 Hwy 87 Gilchrist TX 77617	4/12/2010
33	4/21/2010	0064-0022-0003-000	R177048	Paul	John W	1426 Hwy 87 Gilchrist TX 77617	4/9/2010
34	4/21/2010	2270-0000-0005-004	R177060	Skaggs	Willis Ray	978 Baker Ln Gilchrist TX 77617	4/15/2010
35	4/21/2010	2935-0000-0007-000	R177068	Capen	Kyle & Mandy	972 Bluestein Gilchrist TX 77617	4/15/2010
36	4/21/2010	2957-0002-0003-000	R177207	Oehlers	Betti Lanell & Eddie	994 Elizabeth St Gilchrist TX 77617 Lots 3&4	4/14/2010
37	4/21/2010	2957-0002-0005-000	R177208	Oehlers	Betti Lanell & Eddie	990 Elizabeth St Gilchrist TX 77617	4/14/2010
38	4/21/2010	2957-0002-0006-000	R177209	Oehlers	Betti Lanell & Eddie	986 Elizabeth St Gilchrist TX 77617 Lots 6&7	4/14/2010
39	4/21/2010	2957-0002-0007-000	R177210	Oehlers	Betti Lanell & Eddie	980 Elizabeth St Gilchrist TX 77617	4/14/2010
40	4/21/2010	2957-0002-0008-000	R177211	Rogers	Larry & Kayley	976 Elizabeth St Gilchrist TX 77617	4/15/2010
41	4/21/2010	2957-0003-0003-000	R177224	Roberts	Marilyn	989 Elizabeth St Gilchrist TX 77617	4/14/2010
42	4/21/2010	2957-0003-0004-000	R177226	Giles-Saunders	Lon	985 Elizabeth St Gilchrist TX 77617	4/14/2010

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43	4/21/2010	2956-0001-0005-001	R17253	Hyman	Barbara S	973 Mae St Gilchrist TX 77617	4/15/2010
44	4/21/2010	2956-0002-0003-000	R17265	Livingston	Patrick J E	968 Church St Gilchrist TX 77617	4/12/2010
45	4/21/2010	3585-0011-0000-011	R177521	De Lisi	Teresa A	986 Alicia Dr Gilchrist TX 77617	4/14/2010
46	4/21/2010	3587-0021-0006-000	R17788	Henrich	Paul Ray	1036 Black's Slip Rd Gilchrist TX 77617	4/14/2010
47	4/21/2010	0064-0093-0000-000	R177854	Rodriguez	Janet B	1748 Highway 87 Gilchrist TX 77617	4/14/2010
48	4/21/2010	7335-0002-0004-000	R178177	Klimpt	Kelly	984-A Beaumont St Gilchrist TX 77617	4/14/2010
49	4/21/2010	7071-0000-0057-000	R178731	McClenan	James D	3388 Sand Castle Crystal Beach TX 77650	4/12/2010
50	4/21/2010	3550-0013-0004-000	R178852	Rodgers	Douglas & Marcie	3012 Cedar Lane Crystal Beach TX 77650	4/14/2010
51	4/21/2010	3550-0013-0005-000	R178853	Taylor	Michael	3015 Cedar Lane Crystal Beach TX 77650	4/14/2010
52	4/21/2010	4050-0000-0278-000	R179159	Henney	Henry & Mary	2581 Holiday Dr Crystal Beach TX 77650	4/16/2010
53	4/21/2010	4050-0000-0329-000	R179207	Drury	Gregory P	2628 Holiday Crystal Beach TX 77650	4/14/2010
54	4/21/2010	4467-0001-0008-000	R179229	Murphy	Robert & Carolyn	3298 Treasure Ln Crystal Beach TX 77650	4/13/2010
55	4/21/2010	5275-0001-0009-000	R180411	Hawthorne	Steve A	2330 Trinidad Crystal Beach TX 77650	4/14/2010
56	4/21/2010	6755-0001-0001-000	R180587	Plunk	Mona B	2906 Gulf Dr Lots 1 & 2 Crystal Beach TX 77650	4/13/2010
57	4/21/2010	7120-0008-0009-000	R180975	Tantzen	Wendell	2817 Tradewinds Crystal Beach TX	4/7/2010
58	4/21/2010	7120-0011-0008-000	R181011	Sultan	Syed	2808 Tradewind Crystal Beach TX 77650	4/13/2010
59	4/21/2010	3956-0000-0005-000	R217391	Renfrow	Tim	1944 Avenue J Crystal Beach TX 77650	4/14/2010
60	4/21/2010	3956-0000-0010-000	R217396	Aleman	Sixto	1944 Avenue J Crystal Beach TX 77650	4/14/2010
61	4/21/2010	2700-0001-0005-000	R291579	O'Brien	Doris M	3096 James St Crystal Beach TX 77650	4/15/2010
62	4/21/2010	0064-0062-0001-000	R364510	Wright	James H	1644 Hwy 87 Gilchrist TX 77617	4/13/2010
63	4/21/2010	0054-0120-0000-001	R364697	Grouch	DeAnna	978 Geary Ln Gilchrist TX 77617	4/9/2010
64	4/21/2010	0064-0101-0003-000	R368774	Palguta	David	988 Mazzu St Gilchrist TX 77617	4/8/2010
65	4/21/2010	1204-0000-0036-004	R375451	Sage	Hope	2872 Hwy 87 Gilchrist TX 77617	4/12/2010
66	4/21/2010	3956-0000-0006-001	R386179	Criswell	Harold W	1948 Avenue J Crystal Beach TX 77650	4/9/2010
67	4/21/2010	4050-0000-0330-000	R405654	Drury	Gregory P	2624 Holiday Crystal Beach TX 77650	4/14/2010
68	4/21/2010	0064-0022-0003-003	R423404	Vertucci	Gerald & Sandra	1414 Hwy 87 Gilchrist TX 77617	4/14/2010
69	4/21/2010	1825-0004-0019-000	R510022	Taylor	Michael	973 Caplen Gilchrist TX 77617	4/14/2010
70	4/21/2010	7335-0002-0004-001	R511144	Klimpt	Kelly	984-B Beaumont St Gilchrist TX 77617	4/14/2010
71	5/5/2010	1204-0000-0006-000	R172190	Saman	Linda R	2648 Hwy 87 Gilchrist TX 77617	4/18/2010
72	5/5/2010	1204-0000-0020-000	R172204	Hancock	Doug & Gail	2752 Hwy 87 Gilchrist TX 77617	4/21/2010
73	5/5/2010	1204-0000-0030-000	R172214	Smith	Greg & Josie	2826 Hwy 87 Gilchrist TX 77617	4/21/2010
74	5/5/2010	2205-0000-0290-000	R172505	Carney	Lillie M	1412 Van Sant Gilchrist TX 77617	4/27/2010
75	5/5/2010	0054-0022-0000-000	R173821	Moore Jr	Teddy	1188 Bryants Ln Caplen TX 77617	4/20/2010
76	5/5/2010	2210-0003-0003-000	R176944	Akin	Stephen J	989 Johnson Rd Gilchrist TX 77617	4/16/2010
77	5/5/2010	2210-0003-0007-000	R176948	Woodson	Michael	980 Lazy Lane Gilchrist TX 77617	4/27/2010
78	5/5/2010	3585-0011-0000-003	R177512	Brett	Mary E & Joseph D	979 Alicia Dr Gilchrist TX 77617	4/16/2010
79	5/5/2010	7335-0001-0002-002	R178170	Russenberger	Frank	981 Beaumont Ave Gilchrist TX 77617	4/16/2010
80	5/5/2010	1067-0000-0090-000	R178476	Hooper	Fred D Jr	2116 Gulf St Crystal Beach TX 77650	4/17/2010
81	5/5/2010	4050-0000-0331-000	R179208	Thornton	Patricia	2618 Holiday Dr Crystal Beach TX 77650	4/27/2010
82	5/5/2010	4050-0000-0342-000	R179219	Cramer	Alan	2574 Holiday Crystal Beach TX 77650	4/21/2010
83	5/5/2010	5135-0000-0043-000	R179477	Hebert	Allon John	849 Meyning Ln Crystal Beach TX 77650	4/27/2010
84	5/5/2010	0068-0012-0000-000	R181375	Cramer	Alan	1098 Hwy 87 Gilchrist TX 77617	4/21/2010
85	5/5/2010	6550-0006-0015-000	R186431	Hughes	Benny H & Allison	3592 Tarpon Way Crystal Beach TX 77650	4/19/2010

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86	5/5/2010	1865-0000 0134-001	R214702	Jacobs	Dan	1142 Gulfview Rd Crystal Beach TX 77650	4/22/2010
87	5/5/2010	3956 0000 0003-000	R217389	Neal	Paul	1940 Avenue J Crystal Beach TX 77650	4/15/2010
88	5/5/2010	3958 0000-0011 000	R217387	Henley	Terry	1937 Avenue J Crystal Beach TX 77650	4/15/2010
89	5/5/2010	3956 0000 0012 000	R217398	Henley	Terry	1939 Avenue J Crystal Beach, TX 77650	4/15/2010
90	5/5/2010	7335 0003-0001 001	R293733	Thornton	Jack & Jennie	982 Austin Dr Gilchrist TX 77617	4/27/2010
91	5/12/2010	4107-0000 0021 002	R170402	Wall, Jr	CH	955 James Rd Gilchrist TX 77617	4/21/2010
92	5/12/2010	2205-0000 0423 000	R172633	Nguyen	Kim	1023 Mabry Gilchrist TX 77617	4/28/2010
93	5/12/2010	1925 0004 0011 000	R176923	Rosales Motola	Ysidoro	998 Marjorie Gilchrist TX 77617	4/27/2010
94	5/12/2010	3276 0001 0033 000	R177332	Cramer	Alan	1140 Faggards Slip Gilchrist TX 77617	4/29/2010
95	5/12/2010	3585 0011 0000 001	R177510	Fulmer	Steven L & Nancy	999 Alicia Dr Gilchrist TX 77617	4/21/2010
96	5/12/2010	5010-0000 0016 000	R177964	Mazzu	Thomas J	977 Mazzu St Gilchrist TX 77617	4/28/2010
97	5/12/2010	0064-0073 0000-000	R178142	Sartwelle	Charlie	1720 Hwy 87 Gilchrist TX 77617	4/15/2010
98	5/12/2010	4050 0000 0336 000	R179213	Mullins	Katherine J & Robert W	2596 Holiday Crystal Beach TX 77650	4/26/2010
99	5/12/2010	4050 0000 0337 000	R179214	Baker	John R	2590 Holiday Dr Crystal Beach TX 77650	4/26/2010
100	5/12/2010	4050 0000-0339 000	R179215	Golas	Joe	2584 Holiday Crystal Beach TX 77650	4/26/2010
101	5/12/2010	4467-0001 0001-000	R179222	Albrecht	Stephen & Robin	3266 Treasure Ln Crystal Beach TX 77650	4/26/2010
102	5/12/2010	4467 0002 0001 000	R179240	Forey	Richard	3264 Pridesway Crystal Beach TX 77650	4/27/2010
103	5/12/2010	4980 0004 0027 000	R179429	Mullins	Katherine J & Robert W	968 Stingaree Dr Crystal Beach TX 77650	4/26/2010
104	5/12/2010	5335 0000-0008 000	R179580	Arnold	William	2188 Nossy Waves Ln Crystal Beach TX 77650	4/28/2010
105	5/12/2010	6363 0001 0007 000	R180300	Cordis	E G, Jr	3550 Smiths Point Crystal Beach TX 77650	4/29/2010
106	5/12/2010	6363-0001 0009-000	R180302	Streety	Steven	3530 Smiths Point Crystal Beach TX 77650	4/29/2010
107	5/12/2010	6275-0001 0012 000	R180414	Siem	Joan	2340 Trinidad Crystal Beach TX 77650	4/26/2010
108	5/12/2010	0068 0010-0000 000	R181373	Anderson	Martha E	962 Martha's Vineyard Ln Gilchrist TX 77617	4/26/2010
109	5/12/2010	3200 0000-0212 000	R216218	Ballew	Mike & Margo	1342 Emerald Dr Crystal Beach, TX 77650	4/26/2010
110	5/12/2010	3201-0003 0046 000	R216553	Sansone	Philip	2030 Seaside Dr Crystal Beach TX 77650	4/23/2010
111	5/12/2010	5655-0001 0017-000	R217948	Prosl	Theodore	1990 Gulf Rd Crystal Beach TX 77650	4/22/2010
112	5/19/2010	4107-0000 0008-000	R170388	Randall	Lionel	987 Cade St Gilchrist TX 77617	4/29/2010
113	5/19/2010	1204 0000-0009 000	R172193	Shell's Gilchrist House	Kocurek Scott L & Michelle	2670 Hwy 87 Gilchrist TX 77617	4/28/2010
114	5/19/2010	2205 0000 0126 000	R172351	Berry	Yvonne	1413 Van Sant Gilchrist TX 77617	5/3/2010
115	5/19/2010	2205 0000-0447 000	R172655	Boudreaux	David	1118 Mabry Gilchrist TX 77617	5/1/2010
116	5/19/2010	0054 0003 0000 000	R173798	Bauer	Arthur R & Gail E	990 Gordon Dr Caplen TX 77617	4/30/2010
117	5/19/2010	0064 0049 0000-000	R176666	Sisk	Dorothy	1608 Hwy 87 Gilchrist TX 77617	5/4/2010
118	5/19/2010	1590 0002 0021-000	R176684	Minocchi	Marjannie	1014 Deens St Gilchrist TX 77617	5/1/2010
119	5/19/2010	2210 0002 0011 000	R176937	Wells	Ross & Daughtry, Richard	1362 Keith Ave Gilchrist TX 77617	5/1/2010
120	5/19/2010	2210 0003-0014 000	R176955	Gregory	Richard B & Marcia	1375 Keith Caplen TX 77617	4/28/2010
121	5/19/2010	2958 0001 0008 002	R177259	Atkinson	John S	988 Kirks Rd Gilchrist TX 77617	4/22/2010
122	5/19/2010	2958-0001 0009 002	R177261	Clark	Rons & Barbara	992 Kirk Rd Gilchrist TX 77617	5/4/2010
123	5/19/2010	3276-0001 0025-000	R177324	Meadows	Bobby J	1112 Faggard Slip Rd Gilchrist TX 77617	5/11/2010

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124	5/19/2010	3585 0015-0004 000	R177548	Shonka	Frank	990 Kirkpatrick Gilchrist TX 77617	5/4/2010
125	5/19/2010	3585 0020 0005 001	R177781	Robbins	Cliff	983 French Road Gilchrist, TX 77617	5/7/2010
126	5/19/2010	5010 0000 0019 000	R177967	Mazzu	Donald J & Anna M	989 Mazzu St Gilchrist TX 77617	4/29/2010
127	5/19/2010	1067-0000 0080-000	R178467	Harvey-Schneider	Mary N & Kenneth	865 Alberdie Dr, Crystal Beach TX 77650	5/5/2010
128	5/19/2010	3075 0000-0015 000	R178531	Frost	Jack	2389 Sand Drift Crystal Beach TX 77650	5/7/2010
129	5/19/2010	4050 0000-0204 000	R179087	Gaspard	Norman & Regina	2601 Breaker Crystal Beach TX 77650	5/11/2010
130	5/19/2010	6270 0001-0013 000	R180356	Hatch	Sherrye	3184 Gulf Castle Crystal Beach, TX 77650	4/14/2010
131	5/19/2010	6550 0006 0016 000	R186432	Nichols	H G, Sr estate of R Allan	3594 Tarpon Way Crystal Beach TX 77650	5/7/2010
132	5/19/2010	5134 0000 0016 000	R214294	Quinn	Robert G	1390 Gulf Crystal Beach TX 77650	5/8/2010
133	5/19/2010	3200 0000 0210-000	R218216	Burgess	James C & Irene A	1346 Emerald Dr Crystal Beach TX 77650	4/29/2010
134	5/19/2010	3200 0000-0293 000	R218295	Unruh	James & Eulalia	803 Surfview Emerald Beach, TX 77650	5/11/2010
135	5/19/2010	3200 0000-0295 000	R218297	Follis	Ed B	1336 Emerald Dr Crystal Beach TX 77650	5/7/2010
136	5/19/2010	3200 0000 0463 000	R218444	Lees	William	1320 Emerald Dr Crystal Beach TX 77650	5/7/2010
137	5/26/2010	3735 0000 0185 000	R172154	Moe	James	1058 4th Street Gilchrist TX 77617	5/12/2010
138	5/26/2010	1825-0002 0021 000	R176896	Hornbuckle	Virginia	971 Jean Ave Gilchrist TX 77617	5/9/2010
139	5/26/2010	2958 0002 0014-000	R177277	Sanchez	Raymond & Lisa	971 Kirk Rd Gilchrist, TX 77617	5/11/2010
140	5/26/2010	3585 0003-0000 003	R177490	Coaster	Terry J & Deborah J	983 Weber Rd Gilchrist TX 77617	5/7/2010
141	5/26/2010	3585 0014-0004 000	R177539	Stoneham	Mark & Caroline	989 Kirkpatrick Gilchrist, TX 77617	5/8/2010
142	5/26/2010	6363 0001 0014 000	R180307	Conn	Dorothy A	3480 Smiths Point Crystal Beach TX 77650	5/10/2010
143	5/26/2010	3755 0001 0003 000	R216766	Calder	Denise Ray	1990 Avenue J Crystal Beach TX 77650	5/12/2010
144	5/26/2010	3755-0001 0004-000	R216767	MacMillan	Scott & Patricia	1988 Avenue J Crystal Beach TX 77650	5/7/2010
145	5/26/2010	3956 0000-0016-000	R217402	Dunlap	Jo Ann	1949 Avenue J Crystal Beach TX 77650	5/11/2010
146	5/26/2010	5655 0001-0001 004	R217945	MacMillan	Scott & Patricia	840 Gulf Shores Dr Crystal Beach Tx 77650	5/7/2010
147	5/26/2010	6280 0010 0003 000	R218027	Windmeyer	Don & Susan	1768 Redfish Ln Crystal Beach TX 77650	5/12/2010
148	5/26/2010	6180-0000 0052 000	R303823	Hebert	Clay J	1126 Rollover Circle Gilchrist, TX 77617	5/11/2010
149	5/26/2010	7336-0000 0001-004	R363829	Selzer	Tobias & Amanda	993 Butterfield Gilchrist TX 77617	5/11/2010
150	6/2/2010	4107 0000-0020 000	R170400	Galewsky	Harry	958 James Rd Gilchrist TX 77617	5/19/2010
151	6/2/2010	1590 0002-0016 000	R176680	Todd	Laura Ann & Monroe Lee	1038 Deens St Gilchrist TX 77617	5/14/2010
152	6/2/2010	1825-0002 0004 001	R176880	Beer	Larry D	970 Dolly St Gilchrist TX 77617	5/18/2010
153	6/2/2010	1825-0003 0003-002	R176901	Finley	George, Larry, Carolyn	970 Jean St Gilchrist TX 77617	5/3/2010
154	6/2/2010	1825 0003 0006-000	R176903	Serafino	Aless Ann Isbell	976 Jean St Gilchrist TX 77617	5/14/2010
155	6/2/2010	2210 0001-0000 000	R176929	Blackwell	Daniel	968 Johnson Rd Gilchrist TX 77617	5/13/2010
156	6/2/2010	2957 0003 0007 001	R177232	Kaletka	Richard & Teresa	974 Mae St Gilchrist TX 77617	5/18/2010
157	6/2/2010	3276-0003 0009 000	R177404	Hellinger	Charles N	1048 Waco Gilchrist TX 77650	5/14/2010
158	6/2/2010	3585-0008 0000-007	R177504	Haddox	Ronald & Anna Lee	978 Katy St Gilchrist TX 77617	5/11/2010
159	6/2/2010	3586 0025 0006-000	R177591	Bielgk	Michael	983 Bos Rd Gilchrist TX	5/12/2010
160	6/2/2010	4110 0001-0005 000	R177841	Marcon	Howard, Anthony, Sandry	977 S Deens St Gilchrist TX 77617	5/11/2010

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161	6/2/2010	3075-0000-0006-000	R178520	Radley	Don/Radley Family LP	2402 Sand Drift Ln Crystal Beach TX 77650	5/18/2010
162	6/2/2010	5135-0000-0042-000	R179476	Hanson, Todd	Beachrock Trust	865 Meyning Dr Crystal Beach TX 77650	5/10/2010
163	6/2/2010	1845-0002-0016-000	R214539	Cramer	Alan	1848 Pompano Crystal Beach TX 77650	5/19/2010
164	6/2/2010	1845-0003-0004-000	R214556	Denena	Johnny	1800 Redfish Lane Crystal Beach, TX 77650	5/17/2010
165	6/2/2010	1885-0000-0143-000	R214719	Hulsey	LMH Trust	819 East Rd Crystal Beach TX 77650	5/13/2010
166	6/2/2010	6280-0010-0001-000	R218028	Plum	Beth & Russell	1762 Red Fish Ln Crystal Beach TX 77650	5/14/2010
167	6/2/2010	6280-0010-0006-000	R218031	Rogers	Douglas	1782 Redfish Ln Crystal Beach TX 77650	5/21/2010
168	6/2/2010	7315-0000-0049-000	R218272	Langtree	John A	830 Alma Ln Crystal Beach, TX 77650	5/20/2010
169	6/2/2010	3276-0001-0070-001	R381412	Forsythe	Sallie & Jessie	1275 Faggards Slip Gilchrist TX 77617	5/13/2010
170	6/9/2010	2205-0000-0197-000	R172421	Wheeler	Eileen	1071 Van Sant Gilchrist TX 77617	5/25/2010
171	6/9/2010	4040-0000-0026-000	R172894	Harwell	Michael	2552 Hwy 87 Gilchrist TX 77617	5/19/2010
172	6/9/2010	4040-0000-0031-000	R172899	Stronach	Donald A & Marjorie A	2548 Hwy 87 Gilchrist TX 77617	5/18/2010
173	6/9/2010	2210-0002-0007-000	R176935	McAbee	David	1376 Keith Ave Gilchrist TX 77617	5/24/2010
174	6/9/2010	2955-0002-0013-000	R177099	Fuselier	Harold & Elaine	977 Bay St Gilchrist TX 77617	5/26/2010
175	6/9/2010	4660-0018-0009-000	R177938	Johnston	Irwin B	989 Daggle Dr Gilchrist TX 77617	5/21/2010
176	6/9/2010	5670-0000-0176-000	R179886	Eakins	Gary W	2478 Gilmore Crystal Beach TX 77650	5/25/2010
177	6/9/2010	7120-0002-0028-000	R180786	Arisco	Ida Joyce	915 Driftwood Dr Crystal Beach TX 77650	5/25/2010
178	6/9/2010	3201-0013-0214-000	R216693	Cribbs	C Haden, Jr	2023 Lakeview Dr Crystal Beach TX 77650	5/25/2010
179	6/9/2010	3201-0013-0215-000	R216695	Cribbs	C Haden, Jr	2025 Lakeview Dr Crystal Beach, TX 77650	5/25/2010
180	6/9/2010	6280-0010-0004-000	R218029	Umstead	Billy J & Yonko	1774 Redfish Ln Crystal Beach TX 77650	5/24/2010
181	6/9/2010	7336-0000-0001-003	R363828	Escagne	Allen H	997 Butterfield Ln Gilchrist TX 77617	5/25/2010
182	6/16/2010	1640-0000-0001-000	R170266	Kennett	Lyn Pland	937 James Rd Gilchrist TX 77617	5/27/2010
183	6/16/2010	2119-0000-0003-001	R170357	Maynard	Glenda W	846 Miami Gilchrist TX 77617	5/26/2010
184	6/16/2010	4040-0000-0022-000	R172890	Martino	Joseph	2518 Hwy 87 Gilchrist TX 77617	5/25/2010
185	6/16/2010	1610-0001-0017-000	R176782	Beasley	William E	1965 Hwy 87 Gilchrist TX 776517	6/8/2010
186	6/16/2010	1635-0000-0080-000	R176864	Bristow	Marvin E & Patricia	1048 Beachfront Rd Gilchrist TX	6/2/2010
187	6/16/2010	2955-0002-0007-000	R177091	Johnson	Larry W	982 Gayle St Gilchrist TX 77617	5/25/2010
188	6/16/2010	2957-0002-0016-000	R177219	Goss	Randall & Lynvia	989 Margaret Gilchrist TX 77617	5/27/2010
189	6/16/2010	3585-0013-0004-000	R177531	Kurtin	Mark & Deborah	988 Faggards Slip Gilchrist TX 77617	6/8/2010
190	6/16/2010	3587-0014-0008-000	R177720	McNeill Henney	Stephanie & Julia Chris	1029 Gulf Supply Rd Gilchrist TX 77617	5/29/2010
191	6/16/2010	6182-0000-0001-000	R178116	Brown	Clint Wayne	1047 Joy St Gilchrist TX 77617	6/8/2010
192	6/16/2010	7336-0000-0004-001	R178203	Tabor	Richard F & Anna J	997 Geary St Gilchrist TX 77617	5/31/2010
193	6/16/2010	7120-0012-0003-000	R181015	Smales	Fred	2824 Tradewinds Crystal Beach TX 77650	6/2/2010
194	6/16/2010	1865-0000-0128-001	R214690	Hogan	Claudine	1114 Gulfview Dr Crystal Beach TX 77650	5/26/2010
195	6/16/2010	2673-0000-0005-000	R215694	Casey	Mary	1246 Gulf Rd Crystal Beach TX 77650	5/26/2010
196	6/16/2010	1251-0000-0004-000	R502584	Harrison	T W	2463 Audubon Ave Gilchrist TX 77617	5/28/2010
197	6/16/2010	1252-0000-0001-000	R512292	Harrison	T W	2502 Audubon Ave Gilchrist TX 77617	5/28/2010

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198	6/30/2010	1640-0000-0002-000	R170267	Polk	Carol J	945 James Rd Gilchrist TX 77617	6/7/2010
199	6/30/2010	2205-0000-0186-000	R172411	Burnfield	Ralph Neil & Mary Ann	1123 Van Sant Gilchrist TX 77617	6/4/2010
200	6/30/2010	4040-0000-0029-000	R172897	Duplantis	Stephen	2570 Hwy 87 Gilchrist TX 77617	5/26/2010
201	6/30/2010	1610-0001-0014-000	R176779	Black	Janie & Bradley	1026 Dolphin Gilchrist TX 77617	6/10/2010
202	6/30/2010	2957-0001-0003-000	R177199	Weatherall	Marguerita	990 Margaret St Gilchrist TX 77617	6/7/2010
203	6/30/2010	4110-0001-0012-000	R177847	Gressett	Bea	986 Deens St Gilchrist TX 77617	6/1/2010
204	6/30/2010	4315-0001-0003-000	R177907	Arnold	Jim H & W E	989 Pontiff St Gilchrist TX 77617	6/8/2010
205	6/30/2010	5010-0000-0006-000	R177955	Emerald	A John	977 Elsie St Gilchrist TX 77617	6/2/2010
206	6/30/2010	6182-0000-0024-000	R178139	Minter	Larry V & Jo H	1101 Joy Gilchrist TX 77617	6/10/2010
207	6/30/2010	0064-0085-0000-000	R178163	Funchess	Wanda	1680 Hwy 87 Gilchrist TX 77617	6/1/2010
208	6/30/2010	7335-0002-0007-000	R178180	Marks	Frank R	994 Beaumont St Gilchrist TX 77617	6/2/2010
209	6/30/2010	1067-0000-0091-000	R178477	Bergh	Stephen S	2120 Gulf St Crystal Beach TX 77650	6/3/2010
210	6/30/2010	5135-0000-0044-000	R179478	McCarroll	Celeste	845 Meyng Dr Crystal Beach TX 77650	6/6/2010
211	6/30/2010	6363-0001-0012-000	R180305	Knight	Marc & Carole	3500 Smiths Point Crystal Beach, TX 77650	6/17/2010
212	6/30/2010	5960-0475-1017-001	R207967	Beavers	Billy & Marie	1913 Galveston Alley Port Bolwar, TX 77650	6/18/2010
213	6/30/2010	3200-0000-0127-000	R216136	Mackowski-Tomberlin	Donna	1352 Emerald Dr Crystal Beach TX 77650	5/27/2010
214	6/30/2010	3200-0000-0213-000	R216219	O'Sullivan	Janette	1340 Emerald Crystal Beach TX 77650	6/2/2010
215	6/30/2010	3755-0002-0018-000	R246790	Buntin	Robert R	1981 Avenue J Crystal Beach TX 77650	6/4/2010
216	6/30/2010	3956-0000-0007-001	R386181	Krue	Catalina	1952 Avenue J Crystal Beach TX 77650	6/10/2010
217	6/30/2010	3760-0002-0064-001	R403925	Kujawa	Linda	803 Kahla St Crystal Beach, TX 77650	6/3/2010
218	7/7/2010	4215-0000-0008-000	R125377	Bank of American Home Loan Servicing LP		16905 Jamaica Beach Rd Jamaica Beach, TX 77554	4/20/2010
219	7/7/2010	2205-0000-0526-000	R172735	Rogers	Mary	1512 Mabry Gilchrist TX 77617	6/11/2010
220	7/7/2010	4040-0000-0021-000	R172889	Cramer	Alan	2512 Hwy 87 Gilchrist TX 77617	6/17/2010
221	7/7/2010	1610-0001-0012-000	R176777	Beasley	William E	1034 Dolphin St Gilchrist TX 77617	6/17/2010
222	7/7/2010	2210-0004-0007-001	R176966	White	Harold L	986 Johnson Gilchrist TX 77617	6/16/2010
223	7/7/2010	2935-0000-0010-000	R177071	Sayre	George A & Connie M	997 Bluestein Gilchrist TX 77617	6/21/2010
224	7/7/2010	2956-0002-0005-000	R177133	Orosz	Emeric	1020 N Gayle St Gilchrist TX 77617	6/22/2010
225	7/7/2010	2958-0002-0006-000	R177269	Mallet	Cecil	978 Church St Gilchrist, TX 77617	5/25/2010
226	7/7/2010	3276-0002-0026-000	R177382	McCall	Kenneth Lee	1115 Faggards Slip Rd Gilchrist TX 77617	6/20/2010
227	7/7/2010	3585-0005-0000-001	R177493	Kent	Jan	987 Weber Gilchrist TX 77617	6/21/2010
228	7/7/2010	0064-0091-0000-000	R177852	Wood	Terry	1728 Hwy 87 Gilchrist TX 77617	6/24/2010
229	7/7/2010	0064-0095-0000-000	R177853	Baccigalopi	Ted & Marcella	1794 Hwy 87 Gilchrist, TX 77617	6/16/2010
230	7/7/2010	6180-0000-0095-000	R178107	Rayburn	Michael G & Alberta A	1039 Rollover One Gilchrist TX 77617	6/9/2010
231	7/7/2010	6040-0000-0032-000	R179924	Meaux	David	2900 Tropicana Dr Crystal Beach TX 77650	6/16/2010
232	7/7/2010	6363-0001-0013-000	R180306	Golden	James S	3490 Smiths Point Crystal Beach, TX 77650	6/17/2010
233	7/7/2010	7120-0007-0007-000	R180961	Carver	David	2771 Tradewind Ln Crystal Beach, TX 77650	6/21/2010
234	7/7/2010	2670-0000-0033-000	R215566	Greenwood	Michael E	854 Buell Crystal Beach TX 77650	6/15/2010

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235	7/7/2010	3201-0002-0044-000	R216551	Palmer	Charles D & Brenda S	800 Eastview Crystal Beach TX 77650	6/15/2010
236	7/7/2010	3956-0000-0004-000	R217390	Andrus	Jay L	1942 Avenue J Crystal Beach TX 77650	6/19/2010
237	7/7/2010	7315 0000 0003 000	R218244	Staib	Allan	827 Alma Crystal Beach, TX 77650	6/17/2010
238	7/7/2010	7315 0000 0005-000	R218246	Driscoll	Stephen	835 Alma Crystal Beach TX 77650	6/1/2010
239	7/7/2010	7120-0007-0008-000	R434029	Carver	David	2773 Tradewind Ln Crystal Beach, TX 77650	6/21/2010
240	7/28/2010	2118-0000-0001-001	R170271	Lopez	Hilda	950 Linn Gilchrist TX 77617	7/13/2010
241	7/28/2010	2119-0000-0002 001	R170356	Drago Realty Associates	Joseph P Drago	850 Miami Gilchrist, TX 77617	7/13/2010
242	7/28/2010	1204 0000 0010 000	R172194	Kantis	Dean A	2680 Hwy 87 Gilchrist, TX 77617	7/6/2010
243	7/28/2010	1204-0000 0021-000	R172205	Giossi	David	2762 Hwy 87 Gilchrist TX 77617	6/24/2010
244	7/28/2010	2205-0000-0009 000	R172239	Barnes	Diana	1058 Pennington Gilchrist TX 77617	6/30/2010
245	7/28/2010	4040-0000-0011 000	R172879	Cessac	Freddy R & Theta D	2444 Hwy 87 Gilchrist TX 77617	7/14/2010
246	7/28/2010	4040-0000-0013-000	R172881	Kantis	Dean A	2460 Hwy 87 Gilchrist, TX 77617	7/6/2010
247	7/28/2010	1590 0002 0022-000	R176685	Estes	Dwain M	1008 Deens Gilchrist TX 77617	7/2/2010
248	7/28/2010	1635-0000-0064-000	R176853	Cornier	Andrew	1110 Beachfront Gilchrist, TX 77617	7/13/2010
249	7/28/2010	2955-0002-0008 000	R177092	Cacioppo	Mary Jo	976 Gayle St Gilchrist TX 77617	7/13/2010
250	7/28/2010	2956-0002-0008 000	R177136	Williamson	Jackie & Carolyn	1010 Gayle St Gilchrist TX 77617	6/24/2010
251	7/28/2010	2956-0003-0008-002	R177153	Werner	Kenneth	1008 Margaret Rd Gilchrist TX 77617	7/13/2010
252	7/28/2010	2957-0002 0001-000	R177205	Summers	Betty	993 Margaret Rd Gilchrist TX 77617	7/13/2010
253	7/28/2010	3585-0012 0000-002	R177525	Garcia	Mary C & Cathy	981 Faggards Rd Gilchrist TX 77617	6/8/2010
254	7/28/2010	3586-0023-0004 000	R177578	McCall, Jr	Leroy	987 Evans Gilchrist TX 77617	6/21/2010
255	7/28/2010	3586-0023-0006-000	R177580	McCall, Jr	Leroy	979 Evans Gilchrist TX 77617	6/21/2010
256	7/28/2010	3587 0014-0009-000	R177721	Randall	Mary	1033 Gulf Supply Rd Gilchrist TX	7/13/2010
257	7/28/2010	3587-0014 0011-000	R177722	Howard	John	1039 Gulf Supply Rd Gilchrist TX 77617	7/13/2010
258	7/28/2010	3587-0021-0028 000	R177799	Wang	Niki	1080 Blacks Slip Gilchrist TX 77617	6/22/2010
259	7/28/2010	7336-0000-0013-000	R178213	Cramer	Alan	993 George St Gilchrist, TX 77617	6/25/2010
260	7/28/2010	4050-0000-0019-000	R178920	Hodge	Charles W	945 Gulf Rd Crystal Beach, TX 77650	7/13/2010
261	7/28/2010	4050-0000 0332-000	R179209	Bland	Juliet & Steve	2612 Holiday Dr Crystal Beach TX 77650	6/28/2010
262	7/28/2010	6285-0000-0008 000	R180090	McFerrin(Tim Properties LLC)	Tom	2698 Gillespie Crystal Beach, TX 77650	6/29/2010
263	7/28/2010	5960-0350-0015 000	R207219	Desormeaux	Larry J	1404 Front Ave Port Bolivar, TX 77650	7/14/2010
264	7/28/2010	5960 0450-1003-001	R207888	Carter	Daniel	1810 Houston Alley Port Bolivar TX 77650	6/23/2010
265	7/28/2010	6280-0014 0009-000	R218058	LaGrappe	Bryan	841 Trout Blvd Crystal Beach TX 77650	7/14/2010
266	7/28/2010	6180-0000-0051 000	R303824	McCay	M A	1128 Rollover Cr Gilchrist TX 77617	7/14/2010
267	8/4/2010	4109-0000-0002-000	R170310	Hidalgo	Robert A	955 Smith Rd Gilchrist TX 77617	7/14/2010
268	8/4/2010	1825 0002 0004-002	R176881	Crenshaw	John E-Estate of Rosa D Crenshaw	972 Dolly St Gilchrist TX 77617	7/16/2010
269	8/4/2010	2955-0001 0006 000	R177082	Chen	Anthony, Chi-Wa	978 Bay Street Gilchrist TX 77617	7/14/2010
270	8/4/2010	2955-0003-0004 000	R177105	Player	Craig	981 Gayle Gilchrist TX 77617	7/14/2010
271	8/4/2010	2957-0003-0006-000	R177230	Oehlens	Eddie G & Betti Lanell	975 ELIZABETH ST GILCHRIST TX 77617	7/12/2010

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272	8/4/2010	3585-0013-0006-000	R177532	Rand	Jay Ortega	982 Faggards Rd Gilchrist, TX 77617	7/6/2010
273	8/4/2010	3587-0013-0011-000	R177695	Krystapomis	James	1052 Faggards Rd Gilchrist TX 77617	7/7/2010
274	8/4/2010	6180-0000-0013-000	R178069	Grail	Thomas & Jill	1047 Rollover Cr Gilchrist TX 77617	7/15/2010
275	8/4/2010	1067-0000-0047-000	R178432	DeRouen	Jimmy D	2100 Pond Srt Crystal Beach TX 77650	7/20/2010
276	8/4/2010	7071-0000-0050-000	R178724	REDERA LLC	Lasater, Debra Manager	3389 Sandcastle Ln Crystal Beach TX 77650	7/15/2010
277	8/4/2010	4467-0001-0004-000	R179225	Perkins	Robert & Lana	3280 Treasure Ln Crystal Beach TX 77650	7/15/2010
278	8/4/2010	6040-0000-0027-000	R179919	Cherry	Donald B	921 Bahama Dr Crystal Beach TX 77650	7/10/2010
279	8/4/2010	7120-0010-0002-000	R180997	Lanning	Michael	2754 Tradewinds Crystal Beach TX 77650	7/12/2010
280	8/4/2010	7120-0010-0003-000	R180998	Lanning	Michael	2758 Tradewinds Crystal Beach TX 77650	7/12/2010
281	8/4/2010	6550-0006-0014-000	R186430	Schaumburg	George J Jr	3590 Tarpon Way Crystal Beach TX 77650	7/10/2010
282	8/4/2010	3200-0000-0126-000	R216135	Kirchoff	Steve & Jaque	1354 Emerald Ave Crystal Beach, TX 77650	7/9/2010
283	8/4/2010	3200-0000-0286-000	R216288	Barnett	Kenneth John	701 Holiday Crystal Beach TX 77650	7/17/2010
284	8/4/2010	3586-0024-0000-004	R371923	Vargas	Raul	980 Evans St Gilchrist TX 77617	7/9/2010
285	8/4/2010	0052-0009-0000-007	R389032	Fortenberry	David & Sandy	2586 Hwy 87 Gilchrist TX 77617	7/15/2010
286	8/4/2010	1825-0001-0006-000	R515250	Ingvarsen	John & Amy	975 Dolly Gilchrist TX 77617	7/12/2010
287	8/18/2010	1204-0000-0003-000	R172187	Bonnette, Jr	Randall J	2626 Hwy 87 Gilchrist TX 77617	7/26/2010
288	8/18/2010	1204-0000-0008-000	R172192	Husband	Guy B & Charlotte	2666 Hwy 87 Gilchrist TX 77617	7/22/2010
289	8/18/2010	1204-0000-0022-000	R172206	Lyday	Sandra	2770 Hwy 87 Gilchrist TX 77617	8/3/2010
290	8/18/2010	1204-0000-0033-000	R172217	Husband	Guy B & Charlotte	2844 Hwy 87 Gilchrist TX 77617	7/22/2010
291	8/18/2010	1204-0000-0040-001	R172231	Husband	Guy B & Charlotte	2898 Hwy 87 Gilchrist TX 77617	7/22/2010
292	8/18/2010	2205-0000-0255-000	R172472	Perkins	Terry & Dixie	1244 Van Sant Gilchrist TX 77617	7/30/2010
293	8/18/2010	2956-0003-0011-000	R177156	Lovett	Charles Allen	1011 Gayle St Gilchrist TX 77617	7/15/2010
294	8/18/2010	6755-0002-0004-000	R180594	Robach	Patrick & Michelle	2906 Cedar Ln Crystal Beach TX 77650	7/20/2010
295	8/18/2010	7120-0012-0005-000	R181017	Langtree	John A	2830 Tradewinds Ln Crystal Beach TX 77650	5/20/2010
296	8/18/2010	5960-0424-0007-000	R207564	Simpson	George H	1706 Houston Alley Port Bolivar, TX 77650	8/3/2010
297	8/18/2010	5134-0000-0006-000	R214287	O'Brian	Russell	1398 Gulf St Crystal Beach TX 77650	7/19/2010
298	8/18/2010	5134-0000-0015-000	R214293	McCool	Richard H & Shirley A	805 Sandollar Cr Crystal Beach TX 77650	8/3/2010
299	8/18/2010	3755-0001-0005-000	R216768	REDERA LLC	Debra Lasater-Manager	1984 Ave J Crystal Beach TX 77650	7/20/2010
300	8/25/2010	2956-0002-0006-000	R177134	Walker	Alice M	1018 Gayle St N Gilchrist TX 77617	8/3/2010
301	8/25/2010	2957-0002-0015-000	R177218	Montgomery	Frederick & Melinda	985 Margaret Rd Gilchrist TX 77617	7/1/2010
302	8/25/2010	2958-0002-0000-001	R177262	First Baptist Church		1952 Hwy 87 Gilchrist TX 77617	8/4/2010
303	8/25/2010	3586-0028-0007-000	R177609	Kemble	Kenneth	979 Legers St Gilchrist TX 77617	7/13/2010
304	8/25/2010	7335-0003-0006-000	R178196	Broussard	Harry L	988 Austin Dr Gilchrist TX 77617	8/4/2010
305	8/25/2010	4050-0000-0210-000	R179091	Peninsula Beach Properties LLC	Walters, Charles	2629 Breaker Dr Crystal Beach TX 77650	8/8/2010
306	8/25/2010	2670-0000-0024-000	R215560	Maniña	Michael W	840 Buell Crystal Beach, TX 77650	8/2/2010
307	9/1/2010	1825-0002-0019-000	R176893	Grillo	Delores	975 Jean St Gilchrist TX 77617	8/24/2010
308	9/1/2010	2956-0004-0006-000	R177167	Hanks	Willie B & Mildred	1018 N Elizabeth St Gilchrist, TX 77617	8/9/2010

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309	9/1/2010	6285-0000-0016-000	R180097	Kline	Sandra	2740 Gillespie Crystal Beach TX 77650	8/10/2010
310	9/1/2010	6755-0001-0003-000	R180588	Hebert	Anne K	2904 Gulf Rd Crystal Beach TX 77650	8/14/2010
311	9/1/2010	6755-0001-0005-000	R180589	Henley	Terry & Jane	2914 Gulf Dr Crystal Beach TX 77650	8/3/2010
312	9/1/2010	6550-0006-0017-000	R186433	Metzger	Clarence J & Ruth	3596 Tarpon Way Crystal Beach TX 77650	8/13/2010
313	9/1/2010	7725-0009-0003-000	R213209	Purtscher-Sauceda	Augustine	4418 Heron St Hitchcock TX 77563	8/24/2010
314	9/1/2010	7725-0015-0041-000	R213389	Michaels	Maris Marlene	4738 Mallard Hitchcock TX 77563	8/24/2010
315	9/1/2010	1845-0003-0013-000	R214562	Krebs/Reedy	Stephen P/Rex	1830 Redfish Ln Crystal Beach TX 77650	8/23/2010
316	9/1/2010	1945-0001-0001-000	R215473	Stephens	Elmer	1798 Redfish Ln Crystal Beach TX 77650	8/23/2010
317	9/1/2010	3755-0001-0007-000	R216770	ROBB	ALAN	1976 AVE J CRYSTAL BEACH, TX 77650	8/10/2010
318	9/1/2010	3755-0001-0009-000	R216772	ROBB	ALAN	1968 AVE J CRYSTAL BEACH, TX 77650	8/10/2010
319	9/1/2010	4165-0000-0080-002	R217678	Phipps	Barry & Peggy	821 Tinkle Ln Crystal Beach, TX 77650	8/23/2010
320	9/1/2010	2875-0000-0029-000	R221797	Bertanzi	Ronald	365 Atkinson Crystal Beach TX 77650	7/27/2010
321	9/1/2010	5465-0000-0022-000	R222017	Mantha	Joyce	113 Ocean Shores Crystal Beach, TX 77650	8/12/2010
322	9/8/2010	2955-0002-0006-000	R177090	Kirkpatrick	Henry	986 Gayle St Gilchrist TX 77617	8/20/2010
323	9/8/2010	7725-0028-0015-000	R213576	Curran	Patricia J	4812 Bayou Ln Hitchcock TX 77563	8/23/2010
324	9/8/2010	1865-0000-0121-000	R214684	Eschete-Hatchik	Karen A	824 East Rd Crystal Beach TX 77650	8/20/2010
325	9/8/2010	1865-0000-0122-001	R214685	Eschete-Hatchik	Karen A	820 East Rd Crystal Beach TX 77650	8/20/2010
326	9/8/2010	1865-0000-0122-002	R214686	Eschete-Hatchik	Karen A	818 East Rd Crystal Beach TX 77650	8/20/2010
327	9/8/2010	2671-0000-0003-000	R215574	Kline	Sandra	849 Lazy Ln Crystal Beach TX 77650	8/22/2010
328	9/8/2010	3200-0000-0508-000	R216488	Kline	Sandra	773 Townsend Crystal Beach TX 77650	8/22/2010
329	9/15/2010	4187-0000-0000-013	R125430	Bradley	Elizabeth	16501 Jamaica Beach Rd Jamaica Beach, TX 77554	8/23/2010
330	9/15/2010	4040-0000-0025-000	R172893	Schoeman	Cary	2534 Hwy 87 Gilchrist, TX 77617	8/24/2010
331	9/15/2010	2210-0003-0025-000	R176965	Quinn	Lisa & Phillip	1355 Keith Ave Gilchrist TX 77617	9/1/2010
332	9/15/2010	7120-0010-0001-000	R180996	McCracken	Ronald L	2750 Tradewind Crystal Beach TX 77650	8/29/2010
333	9/15/2010	1845-0002-0008-000	R214532	Brewer	Roy V	1816 Pompano Ln Crystal Beach TX 77650	8/14/2010
334	9/22/2010	2119-0000-0007-000	R170361	Armstrong	Doris M	830 Miami St Gilchrist TX 77617	9/1/2010
335	9/22/2010	4315-0002-0004-000	R177916	Heraud	Albert	984 Pontiff St Gilchrist TX 77617	9/5/2010
336	9/22/2010	2900-0003-0001-000	R215872	Cribbs	C Haden	1865 Croaker St Crystal Beach TX 77650	9/1/2010
337	9/22/2010	3755-0001-0006-000	R216769	Buntin	Robert R	1980 Avenue J Crystal Beach TX 77650	9/1/2010
338	9/29/2010	1204-0000-0001-000	R172185	Emerald	A. John	2610 Hwy 87 Gilchrist TX 77617	9/14/2010
339	9/29/2010	3585-0011-0000-008	R177517	Golden/Estate of Luann Gold	Dewey Kent	989 Alicia Dr Gilchrist, TX 77617	9/8/2010
340	9/29/2010	0064-0116-0000-000	R178055	Deasy	Mike W & Kathie	967 Bauer St Gilchrist, TX 77617	9/10/2010
341	9/29/2010	4980-0004-0028-000	R179430	Freeman	Bill & Patricia	966 S Stingaree Crystal Beach, TX 77650	9/6/2010
342	9/29/2010	6270-0001-0018-000	R180361	Davis	Barry J & Roberta Rita	3168 Gulf Castle Crystal Beach TX 77650	8/31/2010
343	9/29/2010	3200-0000-0016-000	R216034	Spiker	Renea	950 Wommack Crystal Beach TX 77650	9/8/2010
344	9/29/2010	1610-0004-0010-001	R309443	Davis	Charles	1047 Buck Shot Gilchrist TX 77617	9/8/2010

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345	10/6/2010	3276-0002-0012-000	R177372	Hilligist	Jerry	1061 Faggards Slip Gilchrist TX 77617	9/13/2010
346	10/6/2010	3586-0029-0017-000	R177613	Miranda	Leslie & David	984 Legers St Gilchrist TX 77617	9/14/2010
347	10/6/2010	4560-0019-0008-000	R177948	Butler	H Joseph	988 Daigle Dr Gilchrist TX 77617	9/16/2010
348	10/6/2010	3201-0003-0047-000	R216554	Bennett	Darlene B	2028 Seaside Crystal Beach TX 77650	9/15/2010
349	10/6/2010	3956-0000-0078-000	R217455	Kelly	Byron & Karen	1951 Avenue G Crystal Beach, TX 77650	9/15/2010
350	10/6/2010	5152-0000-0010-000	R221412	Kay	Judy H	429 Atkinson Crystal Beach TX 77650	9/13/2010
351	10/6/2010	2956-0005-0004-002	R422906	Castleberry	Robert Keith	1028 Mae St Gilchrist TX 77617	8/31/2010
352	10/13/2010	7336-0000-0001-001	R178199	Wukoson	Sue	983 Butterfield Gilchrist TX 77617	9/20/2010
353	10/13/2010	5960-0500-1011-000	R208049	Barton	Ed W	2023 Galveston Ave Port Bolivar, TX 77650	9/30/2010
354	10/13/2010	3201-0010-0199-000	R216680	Doucet	Jerry S & Mary F	2024 Crestview Crystal Beach, TX 77650	9/21/2010
355	10/27/2010	1590-0002-0004-000	R176670	Gaston	Sharon	1041 Deens St Gilchrist TX 77617	9/15/2010
356	10/27/2010	7070-0000-0022-000	R178694	Mason	Brad & Monica	3390 Sand Castle Crystal Beach TX 77650	10/6/2010
357	10/27/2010	0068-0008-0000-000	R181371	Shaddock	Carroll, Trustee	932 Martha's Vineyard Ln Gilchrist, TX 77650	9/15/2010
358	11/3/2010	1610-0001-0000-001	R176763	Tucker	Bruce	1045 Mae St Gilchrist TX 77617	7/29/2010
359	11/3/2010	1635-0000-0048-000	R176848	Malley	Michael G	1160 Beachfront Gilchrist TX 77617	9/15/2010
360	11/10/2010	1204-0000-0016-000	R172200	Flint	Edward & Patsy W	2718 Hwy 87 Gilchrist, TX 77617	10/13/2010
361	11/10/2010	0064-0094-0000-000	R177855	Moujaes	Alfred G & Maria	1772 Hwy 87 Gilchrist, TX 77617	10/18/2010
362	11/10/2010	7725-0023-0009-000	R213415	Baer	Douglas E	4504 Swan Dr Hitchcock TX 77563	10/18/2010
363	11/17/2010	3587-0002-0013-000	R177641	Fischer	John & Shirley	1057 Hamm Rd Gilchrist TX 77617	10/20/2010
364	11/17/2010	4467-0001-0006-000	R179227	Vickery	Arnold A	3288 Treasure Ln Crystal Beach TX 77650	10/29/2010
365	11/17/2010	7725-0010-0024-000	R213247	Dieringer	Debra L	4723 Crane Hitchcock TX 77563	10/28/2010
366	11/24/2010	1204-0000-0011-000	R172195	Orlandi	Marc & Cheryl	2690 Hwy 87 Gilchrist TX 77617	11/7/2010
367	11/24/2010	5335-0000-0005-000	R179577	Shulsky	Joe/Sewal/Barry	2178 Noisy Waves Crystal Beach TX 77650	11/6/2010
368	12/1/2010	7335-0002-0018-000	R178188	Fazelmanesh	Ardesire & Karen	975 Austin Dr Gilchrist TX 77617	11/12/2010
369	12/1/2010	3201-0004-0054-000	R216561	Mapps	Jana	2012 Seaside Crystal Beach TX 77650	11/1/2010
370	12/15/2010	3587-0020-0071-000	R177778	Sherman, Sr	Jimmy Lee & Judith E	1175 Black's Slip Gilchrist TX 77617	8/23/2010
371	12/15/2010	7120-0001-0020-000	R180753	Porter	Charles F. & Betty	907 Sandune Dr Crystal Beach TX 77650	11/16/2010
372	1/5/2011	4040-0000-0003-000	R172871	Fischer	John & Shirley	2394 Hwy 87 Gilchrist TX 77617	12/14/2010
373	1/5/2011	4040-0000-0004-000	R172872	Fischer	John & Shirley	2400 Hwy 87 Gilchrist TX 77617	12/14/2010
374	1/5/2011	4040-0000-0006-000	R172874	Connolly	Thomas	2408 Hwy 87 Gilchrist TX 77617	12/15/2010
375	1/5/2011	3585-0012-0000-003	R177526	Brown	James	985 Faggards Rd Gilchrist TX 77617	11/29/2010
376	1/5/2011	3585-0012-0000-004	R177527	Guthrie	Harry H & Beverly A	989 Faggard Rd Gilchrist TX 77617	12/9/2010
377	1/5/2011	7335-0002-0016-000	R178186	Self	Connie M	987 Austin Dr Gilchrist TX 77617	12/8/2010
378	1/5/2011	1865-0000-0040-000	R515056	Clarke	Kenton	815 S O'neal Crystal Beach TX 77650	12/14/2010
379	1/19/2011	3276-0001-0051-002	R377619	Gassen	Natalie Kay	1234 Faggard Slip Rd Gilchrist TX 77617	12/21/2010

COMMISSIONER'S COURT BUYOUT LIST 2/09/2011 COURT ACTION DATE

No	Court Action Date	GCAD Number	Property ID	Owner's Last Name	Owner's First Name	Damaged Property Address	Presented Offer Date
380	2/9/2011	1610-0001-0013-000	R176778	Newton	Roy	1030 Dolphin Rd Gilchrist TX 77617	1/14/2011
381	2/9/2011	2956-0004-0008-000	R177169	Lozano	Jose & Lillian	1008 Elizabeth St Gilchrist TX 77617	1/11/2011
382	2/9/2011	3585 0011-0000-004	R177513	Dawson	Kathryn	985 Alicia Dr Gilchrist TX 77617	1/14/2011
383	2/9/2011	3586-0027-0017-000	R177603	Quinn	Sandra Leboski	984 Bos Rd Gilchrist TX 77617	1/13/2011
384	2/9/2011	4050-0000-0327-000	R179205	Fraters	Connie	2632 Holiday Crystal Beach TX 77650	12/30/2010
385	2/9/2011	4467-0001 0018-000	R179239	Hogan	Melvin	3348 Treasure Ln Crystal Beach TX 77650	12/30/2010
386	2/9/2011	2670-0000-0016-000	R215557	Black	Betty & James	847 Buell Crystal Beach TX 77650	1/7/2011
387	2/9/2011	1590-0002 0020-000	R288093	Becker	John	1018 Deens St Gilchrist TX 77617	1/3/2011
388	2/9/2011	1825-0003 0007-000	R176904	Clements	Mike	982 Jean St Gilchrist TX 77617	1/13/2011
389	2/9/2011	3586-0028 0008-000	R177608	Bowell	Duncan	983 Legers St Gilchrist TX 77617	1/19/2011
390	2/9/2011	7335-0001 0003-000	R178171	Mazzoli	James & Betty	985 Beaumont Ave Gilchrist TX 77617	1/19/2011
391	2/9/2011	7335-0002 0004-000	R178178	Klimpt	Barbara & John	986 Beaumont St Gilchrist TX 77617	1/13/2011
392	2/9/2011	5335-0000-0007-000	R179579	Paslick	John E	2184 Noisy Waves Crystal Beach TX 77650	1/17/2011
393	2/9/2011	5335-0000-0009-000	R179581	Latolias	Cory	2185 Noisy Waves Crystal Beach TX 77650	1/18/2011

Contracts to be signed on 2/09/2011

Total Contracts

14
393

CONFLICT OF INTEREST AFFIDAVIT

THE STATE OF TEXAS

COUNTY OF GALVESTON

I, Patrick F. Doyle, as a member of Commissioners' Court of Galveston County, make this affidavit and hereby on oath state the following: I, and/or a person or persons related to me in the first degree by consanguinity or affinity, have a substantial interest as such term is defined in Chapter 171 of the Local Government Code of the State of Texas in a business entity or in real property that would be affected by a vote or decision of the Commissioners' Court.

(Select One)

The business entity is South Land Title

The real property is _____

BUSINESS ENTITY CONFLICT

* Patrick F. Doyle, (~~have~~/has) a substantial interest in this business entity for the following reasons. (Check all which are applicable.)

- () Ownership of 10% or more of the voting stock or shares of the business entity.
- () Ownership of 10% or more of the fair market value of the business entity.
- () Ownership of \$15,000. or more of the fair market value of the business entity.
**
- () Funds received from the business entity exceed 10% of _____ gross income for the previous year.
- () A person related to me in the first degree by consanguinity or affinity has a substantial interest in the business entity that would be affected by a decision of the Commissioners' Court.

REAL PROPERTY CONFLICT

* _____ (have/has) a substantial interest in this real property for the following reasons: (Check all which are applicable.)

- () Real property is involved and _____ have an equitable or legal ownership with a fair market value of at least \$2,500.
- () A person related to me in the first degree by consanguinity or affinity has a substantial interest in the real property that would be affected by a decision of the Commissioners' Court.

Upon the filing of this affidavit with the County Clerk, I affirm that I will abstain from voting on any decision involving this business entity or the real property and from any further participation on this matter.

This Affidavit is being executed on Claim No. 14a dated February 9, 2011. (Fill in if applicable.)



Signature of Official

County Commissioner Precinct 1

Title

Before me, the undersigned authority, on this day personally appeared Patrick F. Doyle and on oath stated that the facts herein above stated are true to the best of his knowledge or belief.

Sworn to and Subscribed before me on this 9th day of February, 2011.



("I" or name of relative or relationship)

** (my, his, her)

*** (I, he, she)

DWIGHT D. SULLIVAN , County Clerk
Galveston County, Texas

By: Brandy Chapman
Brandy Chapman Deputy

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 14th day of January, 2011, by and between **Galveston County a political subdivision of the State of Texas ("County")**, and **Roy Newton ("Seller")**, regardless of the number of signatories

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and /or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from **Seller** all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows, to-wit 1030 Dolph Rd, Gilchrist TX 77617, Legal Description ABST 64 E FRANKS LOT 13 BLOCK 1 BAYVIEW ADDN & IMPS

Seller represents and understands

- The **Premises** was damaged by flood;
- **Seller** qualifies for the assistance being granted under the federal grant;
- The **Seller** has no obligation to sell the **Premises** under this program and does so voluntarily; and
- That if **Seller** withdraws from this sale, **County** will not exercise its power of eminent domain but will release **Seller** from the terms and conditions of this Contract for Sale

The parties agree as follows

- 1 **Seller** agrees to sell the **Premises** described above to **County** for the sum of **\$47,250 00** and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said **Premises** in fee simple, clear of all liens and encumbrances
- 2 **County** agrees to pay **Seller** for said **Premises** the sum of **\$47,250 00** payable at closing after the acceptance of this Agreement and approval of **Seller's** title
- 3 **Seller** acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of **\$63,000 00** with deductions for any insurance payment received by **SELLER** for structural damage from flood insurance of and structural damage from wind insurance of and **\$0 00** for any Disaster Housing Assistance program (DHA) (structural repairs) and/or **\$0.00** for Other Needs Assistance (ONA) for which **SELLER** cannot document as expended on repair of the damaged structure, and a reimbursement of **\$0 00** for certain repairs for which receipts were provided have been added.
- 4 **Seller's** proceeds from the sale of the **Premises** shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement.
- 5 **Seller** understands that **Hazard Mitigation Grant Program** funds being used for the purchase of the **Premises** cannot and will not duplicate benefits received by **Seller** for the same or from any other funds **Seller** agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits
- 6 **Seller** will execute all necessary documents to transfer good and marketable fee simple title to the **Premises** to **County** **Seller** also agrees to execute now and in the future, any and all documents required by **County** and/or **GDEM** to complete this transaction and to comply with **County**, state or federal regulations relating to the federal grants
- 7 **Seller** will not, without prior written notification to and written approval received from **County**, remove any improvements on the **Premises** Upon application to remove such improvements **Seller** must provide appraisals of such improvements as is required by **County** The value of the improvements allowed to be removed by **County**, as unilaterally determined by **County**, will be deducted from the purchase price at closing or, if post closing, paid by **Seller** to **County** within ten (10) days after removal
- 8 **Seller** agrees that no fixtures, materials or improvements to the real estate may be removed by **Seller** or by anyone acting under his direction or with his permission from the **Premises**
- 9 **Seller** also agrees that due to the price he is paid for the **Premises** and due to third party liability concerns, he will not be permitted by **County** to salvage any materials now or at time of demolition Should such materials be removed, the purchase price for the **Premises** will be reduced to correspond with the fair market value of the **Premises** less the fair market value of the materials removed
- 10 **Seller** understands this is a voluntary transaction Accordingly, **Seller** further understand that he is not entitled to relocation benefits provided by the **Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA)**, and will not claim any such benefits

12176778

11 Seller acknowledges that he has had an opportunity to review this **Contract for Sale**, that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this **Contract for Sale** fully understanding its terms and conditions and the nature thereof and that he **Saves and Holds Harmless County, TDEM and TDHCA** incurred by Seller as a result of executing this **Contract for Sale**, and/or for selling the **Premises to County**

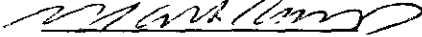
12 This **Contract for Sale** is binding upon Seller's and County's heirs, executors, successors and assigns


DATED this 14th day of JANUARY, 2011


Seller Signature

Roy Newton
Seller Printed Name

Galveston County

By: 
Mark Henry
County Judge

Attest: 
Dwight Sullivan
County Clerk

2176778

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 11 day of JAN, 2011, by and between Galveston County a political subdivision of the State of Texas ("County"), and Jose Lozano & Lillian Lozano, ("Seller"), regardless of the number of signatories

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and /or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from Seller all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows, to-wit 1008 Elizabeth St Gilchrist Tx 77617, Legal Description Abst 64 E Franks Lot 8 Block 4 Delmar Addn 2 & Imps

Seller represents and understands

- The Premises was damaged by flood,
- Seller qualifies for the assistance being granted under the federal grant,
- The Seller has no obligation to sell the Premises under this program and does so voluntarily, and
- That if Seller withdraws from this sale, County will not exercise its power of eminent domain but will release Seller from the terms and conditions of this Contract for Sale

The parties agree as follows

- 1 Seller agrees to sell the Premises described above to County for the sum of \$67,500.00 and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said Premises in fee simple, clear of all liens and encumbrances
- 2 County agrees to pay Seller for said Premises the sum of \$67,500.00 payable at closing after the acceptance of this Agreement and approval of Seller's title
- 3 Seller acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of \$90,000.00 with deductions for any insurance payment received by SELLER for structural damage from flood insurance of \$0.00 and structural damage from wind insurance of \$0.00 and \$0.00 for any Disaster Housing Assistance program (DHA) (structural repairs) and/or \$0.00 for Other Needs Assistance (ONA) for which SELLER cannot document as expended on repair of the damaged structure, and a reimbursement of \$0.00 for certain repairs for which receipts were provided have been added
- 4 Seller's proceeds from the sale of the Premises shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement
- 5 Seller understands that Hazard Mitigation Grant Program funds being used for the purchase of the Premises cannot and will not duplicate benefits received by Seller for the same or from any other funds Seller agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits
- 6 Seller will execute all necessary documents to transfer good and marketable fee simple title to the Premises to County Seller also agrees to execute now and in the future, any and all documents required by County and/or GDEM to complete this transaction and to comply with County, state or federal regulations relating to the federal grants
- 7 Seller will not, without prior written notification to and written approval received from County, remove any improvements on the Premises Upon application to remove such improvements Seller must provide appraisals of such improvements as is required by County. The value of the improvements allowed to be removed by County, as unilaterally determined by County, will be deducted from the purchase price at closing or, if post closing, paid by Seller to County within ten (10) days after removal
- 8 Seller agrees that no fixtures, materials or improvements to the real estate may be removed by Seller or by anyone acting under his direction or with his permission from the Premises
- 9 Seller also agrees that due to the price he is paid for the Premises and due to third party liability concerns, he will not be permitted by County to salvage any materials now or at time of demolition Should such materials be removed, the purchase price for the Premises will be reduced to correspond with the fair market value of the Premises less the fair market value of the materials removed
- 10 Seller understands this is a voluntary transaction Accordingly, Seller further understand that he is not entitled to relocation benefits provided by the Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA), and will not claim any such benefits

R197169

11 Seller acknowledges that he has had an opportunity to review this **Contract for Sale**, that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this **Contract for Sale** fully understanding its terms and conditions and the nature thereof and that he **Saves and Holds Harmless County, TDEM and TDHCA** incurred by Seller as a result of executing this **Contract for Sale**, and/or for selling the **Premises** to County.

12 This **Contract for Sale** is binding upon Seller's and County's heirs, executors, successors and assigns

DATED this 11 day of JANUARY, 2011

Jose Lozano
Seller Signature

Jose Lozano
Seller Printed Name

Lillian Lozano
Seller Signature

Lillian Lozano
Seller Printed Name

Galveston County

Galveston County

By: Mark Henry
Mark Henry
County Judge

Attest:

Dwight Sullivan
County Clerk

R177169

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 14th day of January, 2011, by and between Galveston County a political subdivision of the State of Texas ("County") and Kathryn Dawson, ("Seller"), regardless of the number of signatories.

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and /or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from Seller all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows, to-wit: 985 Alicia, Gilchrist, TX 77617, Legal Description. ABST 64 PAGE 8 PT OF W 39 FT OF BLK 11 (11-0-4) GILCHRIST SUB

Seller represents and understands:

- The Premises was damaged by flood;
- Seller qualifies for the assistance being granted under the federal grant;
- The Seller has no obligation to sell the Premises under this program and does so voluntarily; and
- That if Seller withdraws from this sale, County will not exercise its power of eminent domain but will release Seller from the terms and conditions of this Contract for Sale

The parties agree as follows:

- 1 Seller agrees to sell the Premises described above to County for the sum of \$15,880.91 and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said Premises in fee simple, clear of all liens and encumbrances
- 2 County agrees to pay Seller for said Premises the sum of \$15,880.91 payable at closing after the acceptance of this Agreement and approval of Seller's title
- 3 Seller acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of \$75,000.00 with deductions for any insurance payment received by SELLER for structural damage from flood insurance of \$40,000.00 and structural damage from wind insurance of \$13,825.46 and \$0.00 for any Disaster Housing Assistance program (DHA) (structural repairs) and/or \$0.00 for Other Needs Assistance (ONA) for which SELLER cannot document as expended on repair of the damaged structure, and a reimbursement of \$0.00 for certain repairs for which receipts were provided have been added.
- 4 Seller's proceeds from the sale of the Premises shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement
- 5 Seller understands that Hazard Mitigation Grant Program funds being used for the purchase of the Premises cannot and will not duplicate benefits received by Seller for the same or from any other funds Seller agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits
- 6 Seller will execute all necessary documents to transfer good and marketable fee simple title to the Premises to County Seller also agrees to execute now and in the future, any and all documents required by County and/or GDEM to complete this transaction and to comply with County, state or federal regulations relating to the federal grants
- 7 Seller will not, without prior written notification to and written approval received from County, remove any improvements on the Premises Upon application to remove such improvements Seller must provide appraisals of such improvements as is required by County The value of the improvements allowed to be removed by County, as unilaterally determined by County, will be deducted from the purchase price at closing or, if post closing, paid by Seller to County within ten (10) days after removal
- 8 Seller agrees that no fixtures, materials or improvements to the real estate may be removed by Seller or by anyone acting under his direction or with his permission from the Premises
- 9 Seller also agrees that due to the price he is paid for the Premises and due to third party liability concerns, he will not be permitted by County to salvage any materials now or at time of demolition Should such materials be removed, the purchase price for the Premises will be reduced to correspond with the fair market value of the Premises less the fair market value of the materials removed.
- 10 Seller understands this is a voluntary transaction. Accordingly, Seller further understand that he is not entitled to relocation benefits provided by the Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA), and will not claim any such benefits

R/77513

11 Seller acknowledges that he has had an opportunity to review this **Contract for Sale**, that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this **Contract for Sale** fully understanding its terms and conditions and the nature thereof and that he **Saves and Holds Harmless County, TDEM and TDHCA** incurred by Seller as a result of executing this **Contract for Sale**, and/or for selling the **Premises to County**.

12 This **Contract for Sale** is binding upon Seller's and County's heirs, executors, successors and assigns

DATED this 14th day of January, 2011

Kathryn Dawson
Seller Signature

Kathryn Dawson
Seller Printed Name

Galveston County

By: Mark Henry
Mark Henry
County Judge

Attest: Dwight E. Sullivan
Dwight Sullivan
County Clerk

12177513

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 13 day of January, 2011, by and between Galveston County a political subdivision of the State of Texas ("County"), and Sandra Lehoski Quinn, ("Seller"), regardless of the number of signatories

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and/or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from Seller all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows, to-wit: 984 Bos Rd, Gilchrist TX 77617, Legal Description. ABST 64 E FRANKS LOT 17 UNRECD S-D OF LOT 27 GILCHRIST S-D 50 X 82 FT

Seller represents and understands

- The Premises was damaged by flood,
- Seller qualifies for the assistance being granted under the federal grant,
- The Seller has no obligation to sell the Premises under this program and does so voluntarily, and
- That if Seller withdraws from this sale, County will not exercise its power of eminent domain but will release Seller from the terms and conditions of this Contract for Sale

The parties agree as follows

- 1 Seller agrees to sell the Premises described above to County for the sum of \$107,250.00 and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said Premises in fee simple, clear of all liens and encumbrances.
- 2 County agrees to pay Seller for said Premises the sum of \$107,250.00 payable at closing after the acceptance of this Agreement and approval of Seller's title
- 3 Seller acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of \$143,000.00 with deductions for any insurance payment received by SELLER for structural damage from flood insurance of \$0.00 and structural damage from wind insurance of \$0.00 and \$0.00 for any Disaster Housing Assistance program (DHA) (structural repairs) and/or \$0.00 for Other Needs Assistance (ONA) for which SELLER cannot document as expended on repair of the damaged structure, and a reimbursement of \$0.00 for certain repairs for which receipts were provided have been added.
- 4 Seller's proceeds from the sale of the Premises shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement
- 5 Seller understands that Hazard Mitigation Grant Program funds being used for the purchase of the Premises cannot and will not duplicate benefits received by Seller for the same or from any other funds Seller agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits
- 6 Seller will execute all necessary documents to transfer good and marketable fee simple title to the Premises to County Seller also agrees to execute now and in the future, any and all documents required by County and/or GDEM to complete this transaction and to comply with County, state or federal regulations relating to the federal grants
- 7 Seller will not, without prior written notification to and written approval received from County, remove any improvements on the Premises Upon application to remove such improvements Seller must provide appraisals of such improvements as is required by County The value of the improvements allowed to be removed by County, as unilaterally determined by County, will be deducted from the purchase price at closing or, if post closing, paid by Seller to County within ten (10) days after removal
- 8 Seller agrees that no fixtures, materials or improvements to the real estate may be removed by Seller or by anyone acting under his direction or with his permission from the Premises
- 9 Seller also agrees that due to the price he is paid for the Premises and due to third party liability concerns, he will not be permitted by County to salvage any materials now or at time of demolition Should such materials be removed, the purchase price for the Premises will be reduced to correspond with the fair market value of the Premises less the fair market value of the materials removed.
- 10 Seller understands this is a voluntary transaction Accordingly, Seller further understand that he is not entitled to relocation benefits provided by the Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA), and will not claim any such benefits

R/177603

11 Seller acknowledges that he has had an opportunity to review this **Contract for Sale** that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this **Contract for Sale** fully understanding its terms and conditions and the nature thereof and that he **Saves and Holds Harmless County, TDEM and TDHCA** incurred by Seller as a result of executing this **Contract for Sale**, and/or for selling the **Premises to County**

12 This **Contract for Sale** is binding upon Seller's and County's heirs, executors, successors and assigns

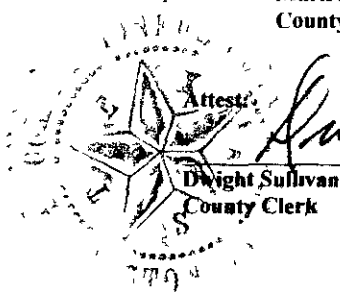
DATED this 13 day of January 2011

Sandra Lehoski Quinn
Seller Signature

Sandra Lehoski Quinn
Seller Printed Name

Galveston County

By: Mark Henry
Mark Henry
County Judge



Dwight D. Sullivan
Dwight Sullivan
County Clerk

12177603

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 4 day of January, 2011, by and between **Galveston County a political subdivision of the State of Texas ("County")**, and **Connie Freters, ("Seller")**, regardless of the number of signatories

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and /or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from **Seller** all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows, to-wit 2632 Holiday, Crystal Beach TX 77650, Legal Description ABST 65 PAGE 7 LOT 327 HOLIDAY BEACH.

Seller represents and understands

- The **Premises** was damaged by flood,
- **Seller** qualifies for the assistance being granted under the federal grant,
- The **Seller** has no obligation to sell the **Premises** under this program and does so voluntarily and
- That if **Seller** withdraws from this sale, **County** will not exercise its power of eminent domain but will release **Seller** from the terms and conditions of this Contract for Sale

The parties agree as follows

- 1 **Seller** agrees to sell the **Premises** described above to **County** for the sum of **\$86,198.80** and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said **Premises** in fee simple, clear of all liens and encumbrances
- 2 **County** agrees to pay **Seller** for said Premises the sum of **\$86,198.80** payable at closing after the acceptance of this Agreement and approval of **Seller's** title
- 3 **Seller** acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of **\$270,000.00** with deductions for any insurance payment received by **SELLER** for structural damage from flood insurance of **\$117,447.53** and structural damage from wind insurance of **\$43,900.74** and **\$0.00** for any Disaster Housing Assistance program (DHA) (structural repairs) and/or **\$0.00** for Other Needs Assistance (ONA) for which **SELLER** cannot document as expended on repair of the damaged structure, and a reimbursement of **\$6,280.00** for certain repairs for which receipts were provided have been added.
- 4 **Seller's** proceeds from the sale of the Premises shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement.
- 5 **Seller** understands that **Hazard Mitigation Grant Program** funds being used for the purchase of the Premises cannot and will not duplicate benefits received by **Seller** for the same or from any other funds **Seller** agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits
- 6 **Seller** will execute all necessary documents to transfer good and marketable fee simple title to the Premises to **County** **Seller** also agrees to execute now and in the future, any and all documents required by **County** and/or **GDEM** to complete this transaction and to comply with **County**, state or federal regulations relating to the federal grants
- 7 **Seller** will not, without prior written notification to and written approval received from **County**, remove any improvements on the **Premises** Upon application to remove such improvements **Seller** must provide appraisals of such improvements as is required by **County** The value of the improvements allowed to be removed by **County**, as unilaterally determined by **County**, will be deducted from the purchase price at closing or, if post closing, paid by **Seller** to **County** within ten (10) days after removal
- 8 **Seller** agrees that no fixtures, materials or improvements to the real estate may be removed by **Seller** or by anyone acting under his direction or with his permission from the **Premises**
- 9 **Seller** also agrees that due to the price he is paid for the **Premises** and due to third party liability concerns, he will not be permitted by **County** to salvage any materials now or at time of demolition Should such materials be removed, the purchase price for the **Premises** will be reduced to correspond with the fair market value of the **Premises** less the fair market value of the materials removed
- 10 **Seller** understands this is a voluntary transaction Accordingly, **Seller** further understand that he is not entitled to relocation benefits provided by the **Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA)**, and will not claim any such benefits

12179205

11 Seller acknowledges that he has had an opportunity to review this **Contract for Sale**, that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this **Contract for Sale** fully understanding its terms and conditions and the nature thereof and that he **Saves and Holds Harmless County, TDEM and TDHCA** incurred by Seller as a result of executing this **Contract for Sale**, and/or for selling the **Premises to County**.

12 This **Contract for Sale** is binding upon Seller's and County's heirs, executors, successors and assigns

DATED this 4 day of January, 2011

Connie Freters
Seller Signature

Connie Freters
Seller Printed Name

Galveston County

By: James D. Yarbrough Mark Henry
County Judge

Attest: Dwight D. Sullivan
~~Mary Ann Daigle~~ Dwight Sullivan
County Clerk

R177205

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 1 day of JAN, 2011, by and between Galveston County a political subdivision of the State of Texas ("County"), and Melvin Hogan, ("Seller"), regardless of the number of signatories.

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and /or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from Seller all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows, to-wit: 3348 Treasure Ln, Crystal Beach TX 77650, Legal Description ABST 65 PAGE 14 LOT 18 BLK 1 LAFITTES LANDING

Seller represents and understands

- The Premises was damaged by flood,
- Seller qualifies for the assistance being granted under the federal grant,
- The Seller has no obligation to sell the Premises under this program and does so voluntarily; and
- That if Seller withdraws from this sale, County will not exercise its power of eminent domain but will release Seller from the terms and conditions of this Contract for Sale

The parties agree as follows

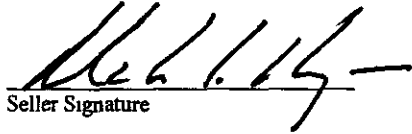
- 1 Seller agrees to sell the Premises described above to County for the sum of \$225,000.00 and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said Premises in fee simple, clear of all liens and encumbrances
- 2 County agrees to pay Seller for said Premises the sum of \$225,000.00 payable at closing after the acceptance of this Agreement and approval of Seller's title
- 3 Seller acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of \$480,000.00 with deductions for any insurance payment received by SELLER for structural damage from flood insurance of \$250,000.00 and structural damage from wind insurance of \$47,706.62 and \$0.00 for any Disaster Housing Assistance program (DHA) (structural repairs) and/or \$0.00 for Other Needs Assistance (ONA) for which SELLER cannot document as expended on repair of the damaged structure, and a reimbursement of \$27,123.00 for certain repairs for which receipts were provided have been added. Note that the above deduction of insurance resulted in a valuation of less than land value. Therefore, the valuation was increased to land value of \$300,000.00
- 4 Seller's proceeds from the sale of the Premises shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement.
- 5 Seller understands that Hazard Mitigation Grant Program funds being used for the purchase of the Premises cannot and will not duplicate benefits received by Seller for the same or from any other funds. Seller agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits
- 6 Seller will execute all necessary documents to transfer good and marketable fee simple title to the Premises to County. Seller also agrees to execute now and in the future, any and all documents required by County and/or GDEM to complete this transaction and to comply with County, state or federal regulations relating to the federal grants
- 7 Seller will not, without prior written notification to and written approval received from County, remove any improvements on the Premises. Upon application to remove such improvements Seller must provide appraisals of such improvements as is required by County. The value of the improvements allowed to be removed by County, as unilaterally determined by County, will be deducted from the purchase price at closing or, if post closing, paid by Seller to County within ten (10) days after removal
- 8 Seller agrees that no fixtures, materials or improvements to the real estate may be removed by Seller or by anyone acting under his direction or with his permission from the Premises
- 9 Seller also agrees that due to the price he is paid for the Premises and due to third party liability concerns, he will not be permitted by County to salvage any materials now or at time of demolition. Should such materials be removed, the purchase price for the Premises will be reduced to correspond with the fair market value of the Premises less the fair market value of the materials removed
- 10 Seller understands this is a voluntary transaction. Accordingly, Seller further understands that he is not entitled to relocation benefits provided by the Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA), and will not claim any such benefits

R179239

11 Seller acknowledges that he has had an opportunity to review this Contract for Sale, that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this Contract for Sale fully understanding its terms and conditions and the nature thereof and that he Saves and Holds Harmless County, TDEM and TDHCA incurred by Seller as a result of executing this Contract for Sale, and/or for selling the Premises to County.

12 This Contract for Sale is binding upon Seller's and County's heirs, executors, successors and assigns

DATED this 1 day of JAN, 2011

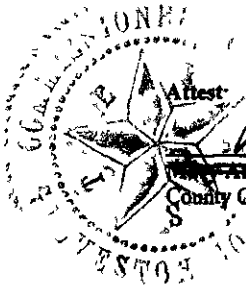


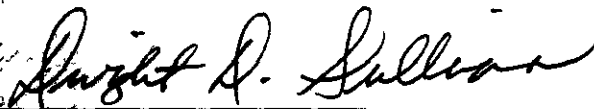
Seller Signature

Melvin Hogan
Seller Printed Name

Galveston County

By: 
~~James D. Yarbrough~~ Mark Henry
County Judge



Attest: 
~~Mark A. Sullivan~~ Dwight Sullivan
County Clerk

R179239

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 9th day of January, 2011, by and between **Galveston County a political subdivision of the State of Texas ("County")** and **Betty Black & James Black, ("Seller")**, regardless of the number of signatories

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and /or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from **Seller** all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows to-wit 847 Buell Crystal Beach TX 77650, Legal Description Lots 16-18, Cloon Sub #1, Abstract 179, J Shaw Survey

Seller represents and understands

- The **Premises** was damaged by flood,
- **Seller** qualifies for the assistance being granted under the federal grant,
- The **Seller** has no obligation to sell the **Premises** under this program and does so voluntarily, and
- That if **Seller** withdraws from this sale, **County** will not exercise its power of eminent domain but will release **Seller** from the terms and conditions of this Contract for Sale

The parties agree as follows

- 1 **Seller** agrees to sell the **Premises** described above to **County** for the sum of **\$183,136.02** and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said **Premises** in fee simple, clear of all liens and encumbrances
- 2 **County** agrees to pay **Seller** for said Premises the sum of **\$183,136.02** payable at closing after the acceptance of this Agreement and approval of **Seller's** title
- 3 **Seller** acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of **\$265,000.00** with deductions for any insurance payment received by **SELLER** for structural damage from flood insurance of **\$0.00** and structural damage from wind insurance of **\$0.00** and **\$20,818.64** for any Disaster Housing Assistance program (DHA) (structural repairs) and/or **\$0.00** for Other Needs Assistance (ONA) for which **SELLER** cannot document as expended on repair of the damaged structure, and a reimbursement of **\$0.00** for certain repairs for which receipts were provided have been added.
- 4 **Seller's** proceeds from the sale of the Premises shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement
- 5 **Seller** understands that **Hazard Mitigation Grant Program** funds being used for the purchase of the Premises cannot and will not duplicate benefits received by **Seller** for the same or from any other funds **Seller** agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits
- 6 **Seller** will execute all necessary documents to transfer good and marketable fee simple title to the Premises to **County** **Seller** also agrees to execute now and in the future, any and all documents required by **County** and/or **GDEM** to complete this transaction and to comply with **County**, state or federal regulations relating to the federal grants
- 7 **Seller** will not, without prior written notification to and written approval received from **County**, remove any improvements on the **Premises** Upon application to remove such improvements **Seller** must provide appraisals of such improvements as is required by **County** The value of the improvements allowed to be removed by **County**, as unilaterally determined by **County**, will be deducted from the purchase price at closing or, if post closing, paid by **Seller** to **County** within ten (10) days after removal
- 8 **Seller** agrees that no fixtures, materials or improvements to the real estate may be removed by **Seller** or by anyone acting under his direction or with his permission from the **Premises**
- 9 **Seller** also agrees that due to the price he is paid for the **Premises** and due to third party liability concerns he will not be permitted by **County** to salvage any materials now or at time of demolition Should such materials be removed, the purchase price for the **Premises** will be reduced to correspond with the fair market value of the **Premises** less the fair market value of the materials removed
- 10 **Seller** understands this is a voluntary transaction Accordingly, **Seller** further understand that he is not entitled to relocation benefits provided by the **Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA)**, and will not claim any such benefits

R215557

11 Seller acknowledges that he has had an opportunity to review this **Contract for Sale**, that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this **Contract for Sale** fully understanding its terms and conditions and the nature thereof and that he **Saves and Holds Harmless County, TDEM and TDHCA** incurred by Seller as a result of executing this **Contract for Sale**, and/or for selling the **Premises** to County.

12 This **Contract for Sale** is binding upon Seller's and County's heirs, executors, successors and assigns

DATED this 9th day of JANUARY, 2011

Betty Black
Seller Signature

Betty Black
Seller Printed Name

James Black
Seller Signature

James Black
Seller Printed Name

Galveston County

Galveston County

By: Mark Henry
Mark Henry
County Judge

Attest: Dwight A. Sullivan
Dwight Sullivan
County Clerk

R215557

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 3rd day of JANUARY, 2011, by and between Galveston County a political subdivision of the State of Texas ("County"), and John Becker, ("Seller"), regardless of the number of signatories.

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and /or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from Seller all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows, to-wit: 1018 Deens St, Gilchrist TX 77617, Legal Description: ABST 64 E FRANKS LOT 20 BLK 2 BAYSIDE ADDN REPLAT OF SAM HUGHES 4.69 AC TR.

Seller represents and understands:

- The Premises was damaged by flood;
- Seller qualifies for the assistance being granted under the federal grant;
- The Seller has no obligation to sell the Premises under this program and does so voluntarily; and
- That if Seller withdraws from this sale, County will not exercise its power of eminent domain but will release Seller from the terms and conditions of this Contract for Sale.

The parties agree as follows:

- 1 Seller agrees to sell the Premises described above to County for the sum of \$45,000.00 and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said Premises in fee simple, clear of all liens and encumbrances.
- 2 County agrees to pay Seller for said Premises the sum of \$45,000.00 payable at closing after the acceptance of this Agreement and approval of Seller's title.
- 3 Seller acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of \$107,000.00 with deductions for any insurance payment received by SELLER for structural damage from flood insurance of \$0.00 and structural damage from wind insurance of \$66,894.10 and \$0.00 for any Disaster Housing Assistance program (DHA) (structural repairs) and/or \$0.00 for Other Needs Assistance (ONA) for which SELLER cannot document as expended on repair of the damaged structure, and a reimbursement of \$10,500.00 for certain repairs for which receipts were provided have been added. Note that the above deduction of insurance resulted in a valuation of less than land value. Therefore, the valuation was increased to land value of \$60,000.00
- 4 Seller's proceeds from the sale of the Premises shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement.
- 5 Seller understands that Hazard Mitigation Grant Program funds being used for the purchase of the Premises cannot and will not duplicate benefits received by Seller for the same or from any other funds. Seller agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits.
- 6 Seller will execute all necessary documents to transfer good and marketable fee simple title to the Premises to County. Seller also agrees to execute now and in the future, any and all documents required by County and/or GDEM to complete this transaction and to comply with County, state or federal regulations relating to the federal grants.
- 7 Seller will not, without prior written notification to and written approval received from County, remove any improvements on the Premises. Upon application to remove such improvements Seller must provide appraisals of such improvements as is required by County. The value of the improvements allowed to be removed by County, as unilaterally determined by County, will be deducted from the purchase price at closing or, if post closing, paid by Seller to County within ten (10) days after removal.
- 8 Seller agrees that no fixtures, materials or improvements to the real estate may be removed by Seller or by anyone acting under his direction or with his permission from the Premises.
- 9 Seller also agrees that due to the price he is paid for the Premises and due to third party liability concerns, he will not be permitted by County to salvage any materials now or at time of demolition. Should such materials be removed, the purchase price for the Premises will be reduced to correspond with the fair market value of the Premises less the fair market value of the materials removed.
- 10 Seller understands this is a voluntary transaction. Accordingly, Seller further understand that he is not entitled to relocation benefits provided by the Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA), and will not claim any such benefits.

R288093

11 Seller acknowledges that he has had an opportunity to review this Contract for Sale, that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this Contract for Sale fully understanding its terms and conditions and the nature thereof and that he Saves and Holds Harmless County, TDEM and TDHCA incurred by Seller as a result of executing this Contract for Sale, and/or for selling the Premises to County.

12. This Contract for Sale is binding upon Seller's and County's heirs, executors, successors and assigns.


DATED this 3rd day of January, 2011
2010



Seller Signature

John Becker
Seller Printed Name

John Becker

Galveston County

By: 
~~James D. Yarbrough~~ Mark Henry
County Judge

Attest: 
~~Mary Ann Duggan~~ Dwight Sullivan
County Clerk

12288093

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 19th day of January, 2011, by and between **Galveston County a political subdivision of the State of Texas ("County")**, and **Mike Clements, ("Seller")**, regardless of the number of signatories.

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and /or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from **Seller** all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows, to-wit. 982 Jean St, Gilchrist TX 77617, Legal Description Abstract 64, E Franks Survey, Lots 7 and 8, Block 3, Birds Gulf Subdivisio

Seller represents and understands

- The **Premises** was damaged by flood,
- **Seller** qualifies for the assistance being granted under the federal grant,
- The **Seller** has no obligation to sell the **Premises** under this program and does so voluntarily; and
- That if **Seller** withdraws from this sale, **County** will not exercise its power of eminent domain but will release **Seller** from the terms and conditions of this Contract for Sale

The parties agree as follows

- 1 **Seller** agrees to sell the **Premises** described above to **County** for the sum of **\$62,250.00** and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said **Premises** in fee simple, clear of all liens and encumbrances
- 2 **County** agrees to pay **Seller** for said Premises the sum of **\$62,250.00** payable at closing after the acceptance of this Agreement and approval of **Seller's** title
- 3 **Seller** acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of **\$83,000.00** with deductions for any insurance payment received by **SELLER** for structural damage from flood insurance of **\$0.00** and structural damage from wind insurance of **\$0.00** and **\$0.00** for any Disaster Housing Assistance program (DHA) (structural repairs) and/or **\$0.00** for Other Needs Assistance (ONA) for which **SELLER** cannot document as expended on repair of the damaged structure, and a reimbursement of **\$0.00** for certain repairs for which receipts were provided have been added
- 4 **Seller's** proceeds from the sale of the Premises shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement
- 5 **Seller** understands that **Hazard Mitigation Grant Program** funds being used for the purchase of the Premises cannot and will not duplicate benefits received by **Seller** for the same or from any other funds **Seller** agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits
- 6 **Seller** will execute all necessary documents to transfer good and marketable fee simple title to the Premises to **County** **Seller** also agrees to execute now and in the future, any and all documents required by **County** and/or **GDEM** to complete this transaction and to comply with **County**, state or federal regulations relating to the federal grants
- 7 **Seller** will not, without prior written notification to and written approval received from **County**, remove any improvements on the **Premises** Upon application to remove such improvements **Seller** must provide appraisals of such improvements as is required by **County** The value of the improvements allowed to be removed by **County**, as unilaterally determined by **County**, will be deducted from the purchase price at closing or, if post closing, paid by **Seller** to **County** within ten (10) days after removal
- 8 **Seller** agrees that no fixtures, materials or improvements to the real estate may be removed by **Seller** or by anyone acting under his direction or with his permission from the **Premises**
- 9 **Seller** also agrees that due to the price he is paid for the **Premises** and due to third party liability concerns, he will not be permitted by **County** to salvage any materials now or at time of demolition Should such materials be removed, the purchase price for the **Premises** will be reduced to correspond with the fair market value of the **Premises** less the fair market value of the materials removed
- 10 **Seller** understands this is a voluntary transaction Accordingly, **Seller** further understand that he is not entitled to relocation benefits provided by the **Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA)**, and will not claim any such benefits

R176904

11 Seller acknowledges that he has had an opportunity to review this **Contract for Sale**, that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this **Contract for Sale** fully understanding its terms and conditions and the nature thereof and that he **Saves and Holds Harmless County, TDEM and TDHCA** incurred by Seller as a result of executing this **Contract for Sale**, and/or for selling the **Premises** to County.

12 This **Contract for Sale** is binding upon Seller's and County's heirs, executors, successors and assigns

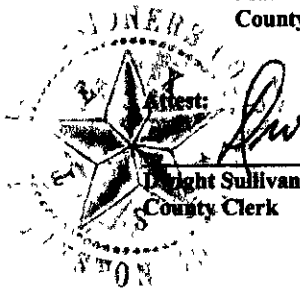
DATED this 19th day of January, 2011



Seller Signature

Mike Clements
Seller Printed Name

Galveston County

By: 
Mark Henry
County Judge



Attest: 
Dwight Sullivan
County Clerk

R176904

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 24 day of January, 2011, by and between Galveston County a political subdivision of the State of Texas ("County"), and Duncan Bowell, ("Seller"), regardless of the number of signatories

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and /or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from Seller all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows, to-wit: 983 Legers St, Gilchrist TX 77617, Legal Description: ABST 64 E FRANKS LOTS 8 & 9 UNRECD S-D OF LOT 28 GILCHRIST S-D 80 X 100 FT

Seller represents and understands

- The Premises was damaged by flood,
- Seller qualifies for the assistance being granted under the federal grant,
- The Seller has no obligation to sell the Premises under this program and does so voluntarily; and
- That if Seller withdraws from this sale, County will not exercise its power of eminent domain but will release Seller from the terms and conditions of this Contract for Sale

The parties agree as follows

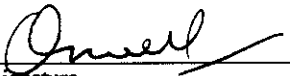
- 1 Seller agrees to sell the Premises described above to County for the sum of \$37,500.00 and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said Premises in fee simple, clear of all liens and encumbrances.
- 2 County agrees to pay Seller for said Premises the sum of \$37,500.00 payable at closing after the acceptance of this Agreement and approval of Seller's title
- 3 Seller acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of \$191,000.00 with deductions for any insurance payment received by SELLER for structural damage from flood insurance of \$200,000.00 and structural damage from wind insurance of \$20,000.00 and \$3,434.35 for any Disaster Housing Assistance program (DHA) (structural repairs) and/or \$0.00 for Other Needs Assistance (ONA) for which SELLER cannot document as expended on repair of the damaged structure, and a reimbursement of \$0.00 for certain repairs for which receipts were provided have been added. Note that the above deduction of insurance resulted in a valuation of less than land value Therefore, the valuation was increased to land value of \$
- 4 Seller's proceeds from the sale of the Premises shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement
- 5 Seller understands that Hazard Mitigation Grant Program funds being used for the purchase of the Premises cannot and will not duplicate benefits received by Seller for the same or from any other funds Seller agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits.
- 6 Seller will execute all necessary documents to transfer good and marketable fee simple title to the Premises to County Seller also agrees to execute now and in the future, any and all documents required by County and/or GDEM to complete this transaction and to comply with County, state or federal regulations relating to the federal grants
- 7 Seller will not, without prior written notification to and written approval received from County, remove any improvements on the Premises Upon application to remove such improvements Seller must provide appraisals of such improvements as is required by County The value of the improvements allowed to be removed by County, as unilaterally determined by County, will be deducted from the purchase price at closing or, if post closing, paid by Seller to County within ten (10) days after removal
- 8 Seller agrees that no fixtures, materials or improvements to the real estate may be removed by Seller or by anyone acting under his direction or with his permission from the Premises
- 9 Seller also agrees that due to the price he is paid for the Premises and due to third party liability concerns, he will not be permitted by County to salvage any materials now or at time of demolition. Should such materials be removed, the purchase price for the Premises will be reduced to correspond with the fair market value of the Premises less the fair market value of the materials removed
- 10 Seller understands this is a voluntary transaction Accordingly, Seller further understand that he is not entitled to relocation benefits provided by the Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA), and will not claim any such benefits

R177608

11 Seller acknowledges that he has had an opportunity to review this Contract for Sale, that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this Contract for Sale fully understanding its terms and conditions and the nature thereof and that he Saves and Holds Harmless County, TDEM and TDHCA incurred by Seller as a result of executing this Contract for Sale, and/or for selling the Premises to County.

12 This Contract for Sale is binding upon Seller's and County's heirs, executors, successors and assigns

DATED this 24 day of January, 2011


Seller Signature

Duncan Howell
Seller Printed Name


Seller Signature

Duncan Howell
Seller Printed Name

Galveston County

By:


Mark Henry
County Judge




Dwight L. Sullivan
County Clerk

12177608

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 20 day of JANUARY, 2011, by and between **Galveston County a political subdivision of the State of Texas ("County")**, and **James Mazzoli & Betty Mazzoli, ("Seller")**, regardless of the number of signatories

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from **Seller** all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows to-wit: 985 Beaumont Ave, Galveston TX 77617, Legal Description ABST 64 E FRANKS S 110 FT LOT 14 VIZARD 2ND & S 100 FT LOT 3 BLK 1 VIZARD 1ST 50.8 X 110 & 70 X 100

Seller represents and understands

- The **Premises** was damaged by flood,
- **Seller** qualifies for the assistance being granted under the federal grant,
- The **Seller** has no obligation to sell the **Premises** under this program and does so voluntarily, and
- That if **Seller** withdraws from this sale, **County** will not exercise its power of eminent domain but will release **Seller** from the terms and conditions of this Contract for Sale

The parties agree as follows

- 1 **Seller** agrees to sell the **Premises** described above to **County** for the sum of **\$52,500.00** and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said **Premises** in fee simple, clear of all liens and encumbrances
- 2 **County** agrees to pay **Seller** for said **Premises** the sum of **\$52,500.00** payable at closing after the acceptance of this Agreement and approval of **Seller's** title
- 3 **Seller** acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of **\$148,000.00** with deductions for any insurance payment received by **SELLER** for structural damage from flood insurance of **\$132,000.00** and structural damage from wind insurance of **\$22,000.00** and **\$702.00** for any Disaster Housing Assistance program (DHA) (structural repairs) and/or **\$0.00** for Other Needs Assistance (ONA) for which **SELLER** cannot document as expended on repair of the damaged structure, and a reimbursement of **\$4,685.00** for certain repairs for which receipts were provided have been added. Note that the above deduction of insurance resulted in a valuation of less than land value. Therefore, the valuation was increased to land value of \$
- 4 **Seller's** proceeds from the sale of the **Premises** shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement
- 5 **Seller** understands that **Hazard Mitigation Grant Program** funds being used for the purchase of the **Premises** cannot and will not duplicate benefits received by **Seller** for the same or from any other funds. **Seller** agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits
- 6 **Seller** will execute all necessary documents to transfer good and marketable fee simple title to the **Premises** to **County**. **Seller** also agrees to execute now and in the future, any and all documents required by **County** and/or **GDEM** to complete this transaction and to comply with **County**, state or federal regulations relating to the federal grants
- 7 **Seller** will not, without prior written notification to and written approval received from **County**, remove any improvements on the **Premises**. Upon application to remove such improvements **Seller** must provide appraisals of such improvements as is required by **County**. The value of the improvements allowed to be removed by **County**, as unilaterally determined by **County**, will be deducted from the purchase price at closing or, if post closing, paid by **Seller** to **County** within ten (10) days after removal
- 8 **Seller** agrees that no fixtures, materials or improvements to the real estate may be removed by **Seller** or by anyone acting under his direction or with his permission from the **Premises**
- 9 **Seller** also agrees that due to the price he is paid for the **Premises** and due to third party liability concerns, he will not be permitted by **County** to salvage any materials now or at time of demolition. Should such materials be removed, the purchase price for the **Premises** will be reduced to correspond with the fair market value of the **Premises** less the fair market value of the materials removed
- 10 **Seller** understands this is a voluntary transaction. Accordingly **Seller** further understand that he is not entitled to relocation benefits provided by the **Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA)** and will not claim any such benefits

R178171

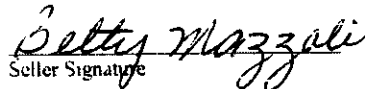
11 Seller acknowledges that he has had an opportunity to review this Contract for Sale, that he has had an opportunity, if he so chose to engage the services of an attorney of his choice to review this document, that he has executed this Contract for Sale fully understanding its terms and conditions and the nature thereof and that he Saves and Holds Harmless County, IDEM and TDHCA incurred by Seller as a result of executing this Contract for Sale, and/or for selling the Premises to County

12 This Contract for Sale is binding upon Seller's and County's heirs, executors, successors and assigns

DATED this 20 day of JANUARY, 2011


Seller Signature

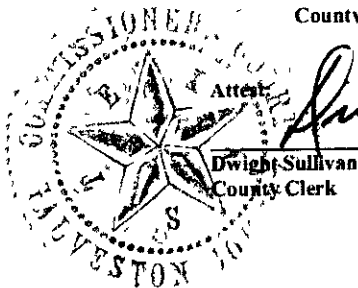
James Mazzoli
Seller Printed Name



Seller Signature

Betty Mazzoli
Seller Printed Name

Galveston County

By: 
Mark Henry
County Judge



Attest: 
Dwight Sullivan
County Clerk

R178171

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 17 day of January, 2011, by and between **Galveston County a political subdivision of the State of Texas ("County")**, and **Barbara Klimpt & John Klimpt, ("Seller")**, regardless of the number of signatories.

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and /or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from **Seller** all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows, to-wit 986 Beaumont St., Gilchrist TX 77617, Legal Description ABST 64 E FRANKS TO LOT 5 BLK 2 VIZARD 1ST ADDN 150 FT X 50 FT

Seller represents and understands

- The **Premises** was damaged by flood,
- **Seller** qualifies for the assistance being granted under the federal grant;
- The **Seller** has no obligation to sell the **Premises** under this program and does so voluntarily; and
- That if **Seller** withdraws from this sale, **County** will not exercise its power of eminent domain but will release **Seller** from the terms and conditions of this Contract for Sale

The parties agree as follows

- 1 **Seller** agrees to sell the **Premises** described above to **County** for the sum of **\$36,750.00** and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said **Premises** in fee simple, clear of all liens and encumbrances
- 2 **County** agrees to pay **Seller** for said **Premises** the sum of **\$36,750.00** payable at closing after the acceptance of this Agreement and approval of **Seller's** title
- 3 **Seller** acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of **\$100,000.00** with deductions for any insurance payment received by **SELLER** for structural damage from flood insurance of **\$84,900.00** and structural damage from wind insurance of **\$11,596.00** and **\$0.00** for any Disaster Housing Assistance program (DHA) (structural repairs) and/or **\$0.00** for Other Needs Assistance (ONA) for which **SELLER** cannot document as expended on repair of the damaged structure, and a reimbursement of **\$0.00** for certain repairs for which receipts were provided have been added. Note that the above deduction of insurance resulted in a valuation of less than land value. Therefore, the valuation was increased to land value of **\$49,000.00**
- 4 **Seller's** proceeds from the sale of the **Premises** shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement
- 5 **Seller** understands that **Hazard Mitigation Grant Program** funds being used for the purchase of the **Premises** cannot and will not duplicate benefits received by **Seller** for the same or from any other funds **Seller** agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits
- 6 **Seller** will execute all necessary documents to transfer good and marketable fee simple title to the **Premises** to **County**. **Seller** also agrees to execute now and in the future, any and all documents required by **County** and/or **GDEM** to complete this transaction and to comply with **County**, state or federal regulations relating to the federal grants
- 7 **Seller** will not, without prior written notification to and written approval received from **County**, remove any improvements on the **Premises**. Upon application to remove such improvements **Seller** must provide appraisals of such improvements as is required by **County**. The value of the improvements allowed to be removed by **County**, as unilaterally determined by **County**, will be deducted from the purchase price at closing or, if post closing, paid by **Seller** to **County** within ten (10) days after removal
- 8 **Seller** agrees that no fixtures, materials or improvements to the real estate may be removed by **Seller** or by anyone acting under his direction or with his permission from the **Premises**
- 9 **Seller** also agrees that due to the price he is paid for the **Premises** and due to third party liability concerns, he will not be permitted by **County** to salvage any materials now or at time of demolition. Should such materials be removed, the purchase price for the **Premises** will be reduced to correspond with the fair market value of the **Premises** less the fair market value of the materials removed.
- 10 **Seller** understands this is a voluntary transaction. Accordingly, **Seller** further understand that he is not entitled to relocation benefits provided by the **Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA)**, and will not claim any such benefits.

R178178

11 Seller acknowledges that he has had an opportunity to review this **Contract for Sale**, that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this **Contract for Sale** fully understanding its terms and conditions and the nature thereof and that he **Saves and Holds Harmless** County, TDEM and TDHCA incurred by Seller as a result of executing this **Contract for Sale**, and/or for selling the **Premises** to County.

12 This **Contract for Sale** is binding upon Seller's and County's heirs, executors, successors and assigns

DATED this 11 day of January, 2011

Barbara Klimpt
Seller Signature

Barbara Klimpt
Seller Printed Name

John Klimpt
Seller Signature

John Klimpt
Seller Printed Name

Galveston County

By: Mark Henry
Mark Henry
County Judge

Affiant: Dwight A. Sullivan
Dwight Sullivan
County Clerk

R178178

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 17 day of JANUARY, 2011, by and between **Galveston County a political subdivision of the State of Texas ("County")**, and **John E Paslick, ("Seller")**, regardless of the number of signatories

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and /or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from **Seller** all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows, to-wit 2184 Noisy Waves Crystal Beach TX 77650, Legal Description ABST 65 PAGE 3 LOT 7 NOISY WAVES

Seller represents and understands

- The **Premises** was damaged by flood,
- **Seller** qualifies for the assistance being granted under the federal grant,
- The **Seller** has no obligation to sell the **Premises** under this program and does so voluntarily, and
- That if **Seller** withdraws from this sale, **County** will not exercise its power of eminent domain but will release **Seller** from the terms and conditions of this Contract for Sale

The parties agree as follows

- 1 **Seller** agrees to sell the **Premises** described above to **County** for the sum of **\$112,500.00** and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said **Premises** in fee simple, clear of all liens and encumbrances.
- 2 **County** agrees to pay **Seller** for said **Premises** the sum of **\$112,500.00** payable at closing after the acceptance of this Agreement and approval of **Seller's** title
- 3 **Seller** acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of **\$305,000.00** with deductions for any insurance payment received by **SELLER** for structural damage from flood insurance of **\$100,000.00** and structural damage from wind insurance of **\$69,177.26** and **\$0.00** for any Disaster Housing Assistance program (DHA) (structural repairs) and/or **\$0.00** for Other Needs Assistance (ONA) for which **SELLER** cannot document as expended on repair of the damaged structure, and a reimbursement of **\$1,413.11** for certain repairs for which receipts were provided have been added Note that the above deduction of insurance resulted in a valuation of less than land value Therefore, the valuation was increased to land value of **\$150,000 00**
- 4 **Seller's** proceeds from the sale of the **Premises** shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement
- 5 **Seller** understands that **Hazard Mitigation Grant Program** funds being used for the purchase of the **Premises** cannot and will not duplicate benefits received by **Seller** for the same or from any other funds **Seller** agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits
- 6 **Seller** will execute all necessary documents to transfer good and marketable fee simple title to the **Premises** to **County** **Seller** also agrees to execute now and in the future, any and all documents required by **County** and/or **GDEM** to complete this transaction and to comply with **County**, state or federal regulations relating to the federal grants
- 7 **Seller** will not, without prior written notification to and written approval received from **County**, remove any improvements on the **Premises** Upon application to remove such improvements **Seller** must provide appraisals of such improvements as is required by **County** The value of the improvements allowed to be removed by **County**, as unilaterally determined by **County**, will be deducted from the purchase price at closing or, if post closing, paid by **Seller** to **County** within ten (10) days after removal
- 8 **Seller** agrees that no fixtures, materials or improvements to the real estate may be removed by **Seller** or by anyone acting under his direction or with his permission from the **Premises**.
- 9 **Seller** also agrees that due to the price he is paid for the **Premises** and due to third party liability concerns, he will not be permitted by **County** to salvage any materials now or at time of demolition Should such materials be removed, the purchase price for the **Premises** will be reduced to correspond with the fair market value of the **Premises** less the fair market value of the materials removed
- 10 **Seller** understands this is a voluntary transaction Accordingly, **Seller** further understand that he is not entitled to relocation benefits provided by the **Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA)**, and will not claim any such benefits

R179579

11 Seller acknowledges that he has had an opportunity to review this **Contract for Sale**, that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this **Contract for Sale** fully understanding its terms and conditions and the nature thereof and that he **Saves and Holds Harmless** County, TDEM and TDHCA incurred by Seller as a result of executing this **Contract for Sale**, and/or for selling the **Premises** to County.

12 This **Contract for Sale** is binding upon Seller's and County's heirs, executors, successors and assigns


DATED this 17 day of JANUARY, 2011



Seller Signature

John E Paslick
Seller Printed Name

Galveston County

By: 
Mark Henry
County Judge

Attest: 
Dwight Sullivan
County Clerk



R179579

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 19th day of January, 2011, by and between **Galveston County a political subdivision of the State of Texas ("County")**, and **Cory Latiollas, ("Seller")**, regardless of the number of signatories

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and /or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from **Seller** all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows, to-wit 2185 Noisy Waves, Crystal Beach TX 77650, Legal Description ABST 65 PAGE 3 LOT 9 NOISY WAVES

Seller represents and understands

- The **Premises** was damaged by flood,
- **Seller** qualifies for the assistance being granted under the federal grant,
- The **Seller** has no obligation to sell the **Premises** under this program and does so voluntarily, and
- That if **Seller** withdraws from this sale, **County** will not exercise its power of eminent domain but will release **Seller** from the terms and conditions of this Contract for Sale

The parties agree as follows


- 1 **Seller** agrees to sell the **Premises** described above to **County** for the sum of **\$76,792.52** and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said **Premises** in fee simple, clear of all liens and encumbrances
- 2 **County** agrees to pay **Seller** for said Premises the sum of **\$76,792.52** payable at closing after the acceptance of this Agreement and approval of **Seller's** title
- 3 **Seller** acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of **\$250,000.00** with deductions for any insurance payment received by **SELLER** for structural damage from flood insurance of **\$70,000.00** and structural damage from wind insurance of **\$79,209.97** and **\$0.00** for any Disaster Housing Assistance program (DHA) (structural repairs) and/or **\$0.00** for Other Needs Assistance (ONA) for which **SELLER** cannot document as expended on repair of the damaged structure, and a reimbursement of **\$1,600.00** for certain repairs for which receipts were provided have been added.
- 4 **Seller's** proceeds from the sale of the Premises shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement
- 5 **Seller** understands that **Hazard Mitigation Grant Program** funds being used for the purchase of the Premises cannot and will not duplicate benefits received by **Seller** for the same or from any other funds **Seller** agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits
- 6 **Seller** will execute all necessary documents to transfer good and marketable fee simple title to the Premises to **County** **Seller** also agrees to execute now and in the future, any and all documents required by **County** and/or **GDEM** to complete this transaction and to comply with **County**, state or federal regulations relating to the federal grants
- 7 **Seller** will not, without prior written notification to and written approval received from **County**, remove any improvements on the **Premises** Upon application to remove such improvements **Seller** must provide appraisals of such improvements as is required by **County** The value of the improvements allowed to be removed by **County**, as unilaterally determined by **County**, will be deducted from the purchase price at closing or, if post closing, paid by **Seller** to **County** within ten (10) days after removal
- 8 **Seller** agrees that no fixtures, materials or improvements to the real estate may be removed by **Seller** or by anyone acting under his direction or with his permission from the **Premises**
- 9 **Seller** also agrees that due to the price he is paid for the **Premises** and due to third party liability concerns, he will not be permitted by **County** to salvage any materials now or at time of demolition Should such materials be removed, the purchase price for the **Premises** will be reduced to correspond with the fair market value of the **Premises** less the fair market value of the materials removed
- 10 **Seller** understands this is a voluntary transaction Accordingly, **Seller** further understand that he is not entitled to relocation benefits provided by the **Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA)**, and will not claim any such benefits

R179581

11 Seller acknowledges that he has had an opportunity to review this Contract for Sale, that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this Contract for Sale fully understanding its terms and conditions and the nature thereof and that he Saves and Holds Harmless County, TDEM and TDHCA incurred by Seller as a result of executing this Contract for Sale, and/or for selling the Premises to County.

12. This Contract for Sale is binding upon Seller's and County's heirs, executors, successors and assigns

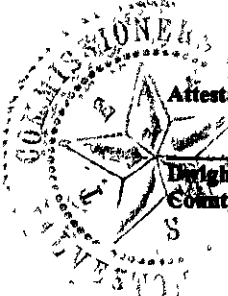

DATED this 19th day of JANUARY, 2011


Seller Signature

Cory Latolias
Seller Printed Name

Galveston County

By: 
Mark Henry
County Judge


Attest: 
Dwight L. Sullivan
County Clerk

R179581

AGENDA

ITEM

#14b

CONFLICT OF INTEREST AFFIDAVIT

THE STATE OF TEXAS

COUNTY OF GALVESTON

I, Patrick F. Doyle, as a member of Commissioners' Court of Galveston County, make this affidavit and hereby on oath state the following: I, and/or a person or persons related to me in the first degree by consanguinity or affinity, have a substantial interest as such term is defined in Chapter 171 of the Local Government Code of the State of Texas in a business entity or in real property that would be affected by a vote or decision of the Commissioners' Court.

(Select One)

The business entity is South Land Title

The real property is _____

BUSINESS ENTITY CONFLICT

* Patrick F. Doyle, (~~have~~/has) a substantial interest in this business entity for the following reasons: (Check all which are applicable.)

- () Ownership of 10% or more of the voting stock or shares of the business entity.
- () Ownership of 10% or more of the fair market value of the business entity.
- () Ownership of \$15,000. or more of the fair market value of the business entity.
**
- () Funds received from the business entity exceed 10% of _____ gross income for the previous year.
- () A person related to me in the first degree by consanguinity or affinity has a substantial interest in the business entity that would be affected by a decision of the Commissioners' Court.

REAL PROPERTY CONFLICT

* _____ (have/has) a substantial interest in this real property for the following reasons: (Check all which are applicable.)

() Real property is involved and _____ have an equitable or legal ownership with a fair market value of at least \$2,500.

() A person related to me in the first degree by consanguinity or affinity has a substantial interest in the real property that would be affected by a decision of the Commissioners' Court.

Upon the filing of this affidavit with the County Clerk, I affirm that I will abstain from voting on any decision involving this business entity or the real property and from any further participation on this matter.

This Affidavit is being executed on Claim No. 14b dated February 9, 2011 (Fill in if applicable.)



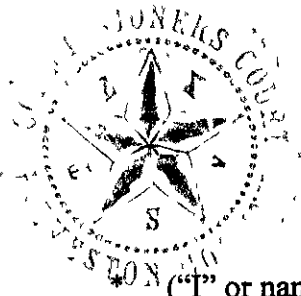
Signature of Official

County Commissioner Precinct 1

Title

Before me, the undersigned authority, on this day personally appeared Patrick F. Doyle and on oath stated that the facts herein above stated are true to the best of his knowledge or belief.

Sworn to and Subscribed before me on this 9th day of February, 2011.



("I" or name of relative or relationship)

** (my, his, her)

*** (I, he, she)

DWIGHT D. SULLIVAN , County Clerk
Galveston County, Texas

By: 
Brandy Chapman Deputy

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 6 day of JANUARY, ²⁰¹¹~~2010~~, by and between Galveston County a political subdivision of the State of Texas ("County"), and Mary Jo Cacioppo, ("Seller"), regardless of the number of signatories

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and /or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from Seller all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows, to-wit: 976 Gayle St Gilchrist TX 77617, Legal Description ABST 64 E FRANKS LOT 8 BLK 2 DELMAR ADDN NO 1

Seller represents and understands

- The Premises was damaged by flood,
- Seller qualifies for the assistance being granted under the federal grant,
- The Seller has no obligation to sell the Premises under this program and does so voluntarily; and
- That if Seller withdraws from this sale, County will not exercise its power of eminent domain but will release Seller from the terms and conditions of this Contract for Sale

The parties agree as follows

1 Seller agrees to sell the Premises described above to County for the sum of \$65,000.00 and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said Premises in fee simple, clear of all liens and encumbrances

2 County agrees to pay Seller for said Premises the sum of \$65,000.00 payable at closing after the acceptance of this Agreement and approval of Seller's title

3 Seller acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of \$145,000.00 with deductions for any insurance payment received by SELLER for structural damage from flood insurance of \$87,900.00 and structural damage from wind insurance of \$44,889.00 and \$0.00 for any Disaster Housing Assistance program (DHA) (structural repairs) and/or \$0.00 for Other Needs Assistance (ONA) for which SELLER cannot document as expended on repair of the damaged structure, and a reimbursement of \$0.00 for certain repairs for which receipts were provided have been added. The Texas General Land office (GLO) is contributing up to \$65,000.00 toward the required 25% local match. The GLO contribution specific to your offer is \$0.00. Note that the above deduction of insurance resulted in a valuation of less than land value. Therefore, the valuation was increased to land value of \$65,000.00

4 Seller's proceeds from the sale of the Premises shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement.

5 Seller understands that Hazard Mitigation Grant Program funds being used for the purchase of the Premises cannot and will not duplicate benefits received by Seller for the same or from any other funds. Seller agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits.

6 Seller will execute all necessary documents to transfer good and marketable fee simple title to the Premises to County. Seller also agrees to execute now and in the future, any and all documents required by County and/or GDEM to complete this transaction and to comply with County, state or federal regulations relating to the federal grants.

7 Seller will not, without prior written notification to and written approval received from County, remove any improvements on the Premises. Upon application to remove such improvements Seller must provide appraisals of such improvements as is required by County. The value of the improvements allowed to be removed by County, as unilaterally determined by County, will be deducted from the purchase price at closing or, if post closing, paid by Seller to County within ten (10) days after removal.

8 Seller agrees that no fixtures, materials or improvements to the real estate may be removed by Seller or by anyone acting under his direction or with his permission from the Premises.

9 Seller also agrees that due to the price he is paid for the Premises and due to third party liability concerns, he will not be permitted by County to salvage any materials now or at time of demolition. Should such materials be removed, the purchase price for the Premises will be reduced to correspond with the fair market value of the Premises less the fair market value of the materials removed.

10 Seller understands this is a voluntary transaction. Accordingly, Seller further understands that he is not entitled to relocation benefits provided by the Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA), and will not claim any such benefits.

R1977092 (E)

11 Seller acknowledges that he has had an opportunity to review this **Contract for Sale**, that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this **Contract for Sale** fully understanding its terms and conditions and the nature thereof and that he **Saves and Holds Harmless County, TDEM and TDHCA** incurred by Seller as a result of executing this **Contract for Sale**, and/or for selling the **Premises to County**.

12 This **Contract for Sale** is binding upon Seller's and County's heirs, executors, successors and assigns

DATED this 6 day of JANUARY, 2011

Mary Jo Cacioppo
Seller Signature

Mary Jo Cacioppo
Seller Printed Name

Galveston County

By: Mark Henry
~~James D. Yarbrough~~ Mark Henry
County Judge

Attest: Dwight D. Sullivan
~~Steph Ann Daigle~~ Dwight Sullivan
County Clerk

1771092-1E

FLOOD DAMAGED PROPERTY CONTRACT FOR SALE

THIS AGREEMENT is made and entered into this 10th day of January, 2011, by and between **Galveston County a political subdivision of the State of Texas ("County")**, and **Jay Andrus and Darla Andrus, ("Seller")**, regardless of the number of signatories

County is acting under a federal grant from the Texas Division of Emergency Management (TDEM) and /or Texas Department of Housing and Community Affairs (TDHCA) desires to purchase from **Seller** all that certain tract or parcel of land together with all improvements located thereon located in Galveston County, Texas ("Premises") more particularly described as follows, to-wit 1942 Avenue J Crystal Beach TX 77650, Legal Description Lot 4, Hi Point Beach Addition

Seller represents and understands

- The **Premises** was damaged by flood,
- **Seller** qualifies for the assistance being granted under the federal grant,
- The **Seller** has no obligation to sell the **Premises** under this program and does so voluntarily, and
- That if **Seller** withdraws from this sale, **County** will not exercise its power of eminent domain but will release **Seller** from the terms and conditions of this Contract for Sale

The parties agree as follows

- 1 **Seller** agrees to sell the **Premises** described above to **County** for the sum of **\$81,655.50** and to execute and deliver a good and sufficient General Warranty Deed conveying marketable title to said **Premises** in fee simple, clear of all liens and encumbrances
- 2 **County** agrees to pay **Seller** for said Premises the sum of **\$81,655.50** payable at closing after the acceptance of this Agreement and approval of **Seller's** title
- 3 **Seller** acknowledges that the price to be paid for the property is seventy-five percent (75%) of the pre-flood value of **\$300,000.00** with deductions for any insurance payment received by **SELLER** for structural damage from flood insurance of **\$156,942.28** and structural damage from wind insurance of **\$34,183.72** and **\$0.00** for any Disaster Housing Assistance program (DHA) (structural repairs) and/or **\$0.00** for Other Needs Assistance (ONA) for which **SELLER** cannot document as expended on repair of the damaged structure, and a reimbursement of **\$0.00** for certain repairs for which receipts were provided have been added.
- 4 **Seller's** proceeds from the sale of the Premises shall first be applied to satisfy all liens on the property, including real estate taxes, which are due and payable to the date of settlement
- 5 **Seller** understands that **Hazard Mitigation Grant Program** funds being used for the purchase of the Premises cannot and will not duplicate benefits received by **Seller** for the same or from any other funds **Seller** agrees to return any disaster aid monies received if such monies amount to a duplicity of benefits
- 6 **Seller** will execute all necessary documents to transfer good and marketable fee simple title to the Premises to **County** **Seller** also agrees to execute now and in the future, any and all documents required by **County** and/or **GDEM** to complete this transaction and to comply with **County**, state or federal regulations relating to the federal grants
- 7 **Seller** will not, without prior written notification to and written approval received from **County**, remove any improvements on the **Premises** Upon application to remove such improvements **Seller** must provide appraisals of such improvements as is required by **County** The value of the improvements allowed to be removed by **County**, as unilaterally determined by **County**, will be deducted from the purchase price at closing or, if post closing, paid by **Seller** to **County** within ten (10) days after removal
- 8 **Seller** agrees that no fixtures, materials or improvements to the real estate may be removed by **Seller** or by anyone acting under his direction or with his permission from the **Premises**
- 9 **Seller** also agrees that due to the price he is paid for the **Premises** and due to third party liability concerns, he will not be permitted by **County** to salvage any materials now or at time of demolition Should such materials be removed, the purchase price for the **Premises** will be reduced to correspond with the fair market value of the **Premises** less the fair market value of the materials removed
- 10 **Seller** understands this is a voluntary transaction Accordingly, **Seller** further understand that he is not entitled to relocation benefits provided by the **Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA)**, and will not claim any such benefits

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11 Seller acknowledges that he has had an opportunity to review this Contract for Sale, that he has had an opportunity, if he so chose, to engage the services of an attorney of his choice to review this document, that he has executed this Contract for Sale fully understanding its terms and conditions and the nature thereof and that he Saves and Holds Harmless County, TDEM and TDHCA incurred by Seller as a result of executing this Contract for Sale, and/or for selling the Premises to County.

12 This Contract for Sale is binding upon Seller's and County's heirs, executors, successors and assigns

DATED this 10th day of January, 2011.

+ Jay L. Andrus
Seller Signature

Jay Andrus
Seller Printed Name

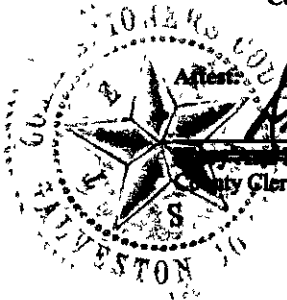
+ Darla H. Andrus
Seller Signature

Darla Andrus
Seller Printed Name

Galveston County

By: Mark Henry
~~James D. Yarbrough~~ Mark Henry
County Judge

Attest: Dwight R. Sullivan
~~County Judge~~ Dwight Sullivan
County Clerk

The seal of Galveston County, Texas, is circular. It features a five-pointed star in the center, with the word "GALVESTON" arched across the top and "TEXAS" arched across the bottom. The words "COUNTY CLERK" are written in a smaller arc above the star.

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